INSTRUCTIONS

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Note to CATV system installer:
This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

This video cassette recorder should be used with AC 120 V~, 60 Hz only.
CAUTION:
To prevent electric shocks and fire hazards, do NOT use any other power source.

CAUTION
When you are not using the HR-S8000U for a long period of time, it is recommended that you disconnect the power cord from the AC outlet.

CAUTION
TO PREVENT ELECTRIC SHOCK DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION:
Pour prévenir l'électrocution, ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.

NOTE: The rating plate and the safety caution are on the rear of the unit.

S-VHS Cassettes marked "S-VHS" and "VHS" can be used with this video cassette recorder. However, S-VHS recordings are possible only with cassettes marked "S-VHS".

Thank you for purchasing the JVC HR-S8000U Super VHS Hi-Fi Stereo Digital Video Cassette Recorder. This unit provides a breath-taking improvement in picture quality, with over 400 lines of picture resolution to double your video enjoyment. True hi-fi stereo complements the superb Super VHS pictures. In addition, a tremendous array of digital functions and other video features are also incorporated in the HR-S8000U.

Before using this video recorder, read this instruction booklet carefully so that you will obtain the best results from your HR-S8000U.

CONTENTS

BASIC INSORMATION
- General reference diagrams 4
- Features 5
- Precautions 6
- Controls, indicators and connectors 7
- For a better understanding of S-VHS and VHS 11
- Connections 13
- Video channel setting 14
- Operating the built-in tuner 15
- Information on the HR-S8000U's audio system 17

BASIC OPERATION
- Clock setting 21
- Loading and unloading a cassette 22
- On-screen channel, time and mode display 22
- Playing back a video cassette 23
- Special-effects playback 24
- Basic operation for recording TV programs 25
- Instant timer recording 26
- Recording one TV program while watching another . . 26
- Recording stereo TV programs 26
- Recording SAP (second audio program) TV programs . 26

CONVENIENT FACILITIES
- Remaining tape time indicator 27
- Next-function memory 27
- Index search function 28
- Intro search function 29
- Counter memory function 29
- Counter go-to function 30

DIGITAL FUNCTIONS
- Digital freeze function 31
- Multi-screen digital freeze function 31
- Digital strobe function 32
- Multi-screen digital stobe function 32
- Digital art effects 33
- Digital zoom function 33
- Picture-in-picture and swap functions 34
- Multi-screen channel scan function 35
- Multi-screen intro search function 35

TIMER RECORDING
- Automatic timer recording 36
- Important information on timer recording 39

ADVANCED USAGE
- Recording FM simulcast TV programs 40
- Recording a TV program while recording an independent audio source 40
- Using the HR-S8000U as an audio deck 40
- Audio dubbing 40
- Insert editing 41
- Tape-to-tape editing 42
- Recording with a video camera 42

In case of difficulty 43
Head cleaning 44
Specifications 44

INSTRUCTIONS EN LANGUE FRANÇAISE . . . . 45 – 86

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A Consumer Video Products Safety Guide

Electrical energy can perform many useful functions. But improper use can result in potential electrical shock or fire hazards. This unit has been engineered and manufactured to assure your personal safety. In order not to defeat the built-in safeguards, observe the following basic rules for its installation, use and servicing.

ATTENTION:
Follow and obey all warnings and instructions marked on your video product and its operating instructions. For your safety, please read all the safety and operating instructions before you operate this unit and keep this brochure and the operating instructions packaged with your video product for future reference.

INSTALLATION

1. Grounding or Polarization
(A) Your video product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature.
If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
(B) Your video product may be equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

2. Power Sources
Operate your unit only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. If your unit is intended to operate from battery power, or other sources, refer to the operating instructions.

3. Overloading
Overloaded power outlets and extension cords are dangerous; so are frayed cords and broken plugs. Any of these may result in a shock or fire hazard. Call your service technician for replacement of such cords and plugs. Extension cords or adaptors that defeat the safety purpose of polarized or 3-wire grounding-type plug power cords should not be used.

4. Power Cord Protection
Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

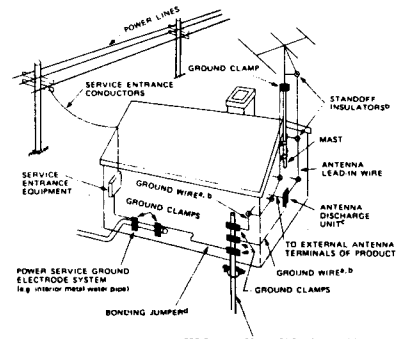
5. Ventilation
Slots and openings in the cabinet are provided for ventilation. To ensure reliable operation of the unit and to protect it from overheating, these openings must not be blocked or covered.
- Do not block the openings by placing the unit on a bed, sofa, rug or other similar surface.
- Do not place the unit near or over a radiator or heat register.
- Do not place the unit in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

ANTENNA INSTALLATION INSTRUCTIONS

1. Outdoor Antenna Grounding
If an outside antenna or cable system is connected to the video recorder or tuner, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code. ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.

2. Power Lines
To avoid the possibility of a fatal electrical shock, outdoor antennas and lead-in wires should be kept well away from over-head power lines or other electric light or power circuits, or from where they can fall onto such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

EXAMPLE OF ANTENNA GROUNDING ACCORDING TO NATIONAL ELECTRICAL CODE INSTRUCTIONS CONTAINED IN ARTICLE 810 – "RADIO AND TELEVISION EQUIPMENT"



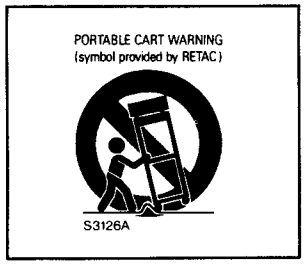
S2898

a
Use No. 10 AWG (5.3 mm^2) copper, No. 8 AWG (8.4 mm^2) aluminum, No. 17 AWG (1.0 mm^2) copper-clad steel or bronze wire, or larger, as a ground wire.
b
Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 – 6 feet (1.22 – 1.83 m) apart.
c
Mount antenna discharge unit as close as possible to where lead-in enters house.
d
Use jumper wire not smaller than No. 6 AWG (13.3 mm^2) copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21 (j).

USE

1. Accessories
To avoid personal injury:
- Do not place this video product on an unstable cart, stand, tripod, bracket, or table. It may fall, causing serious injury to a child or adult, and serious damage to the appliance.
- Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the video product.
- Use a mounting accessory recommended by the manufacturer and follow the manufacturer's instructions for any mounting of the appliance.
- Do not try to roll a cart with small casters across thresholds or deep-pile carpets.

1A.
An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



2. Water and Moisture
Do not use this video product near water – for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool and the like.

3. Object and Liquid Entry
Never push objects of any kind into this video product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on this video product.

4. Attachments
Do not use attachments not recommended by the manufacturer of this video product as they may cause hazards.

5. Cleaning
Unplug this video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

6. Lightning
For added protection for the video recorder or tuner during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power-line surges.

SERVICING

1. Servicing
If your video product is not operating correctly or exhibits a marked change in performance and you are unable to restore normal operation by following the detailed procedure in its operating instructions, do not attempt to service it yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

2. Damage Requiring Service
Unplug the video product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
a. When the power supply cord or plug is damaged.
b. If liquid has been spilled, or objects have fallen into the video product.
c. If the video product has been exposed to rain or water.
d. If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
e. If the video product has been dropped or the cabinet has been damaged.
f. When the video product exhibits a distinct change in performance – this indicates a need for service.

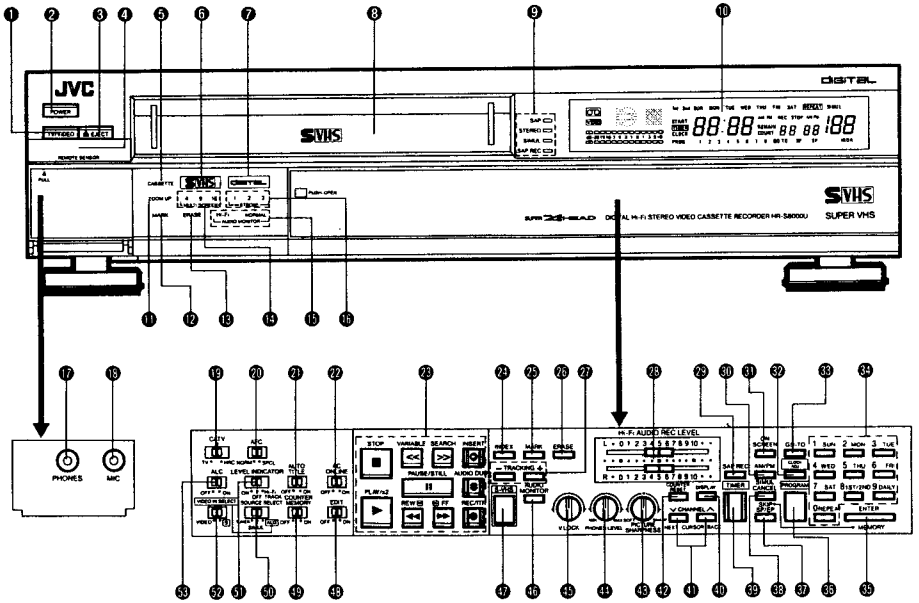
3. Replacement Parts
When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

4. Safety Check
Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in safe operating condition.

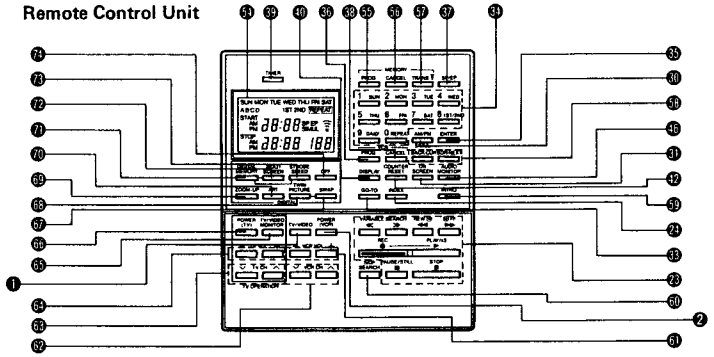
BASIC INFORMATION

GENERAL REFERENCE DIAGRAMS

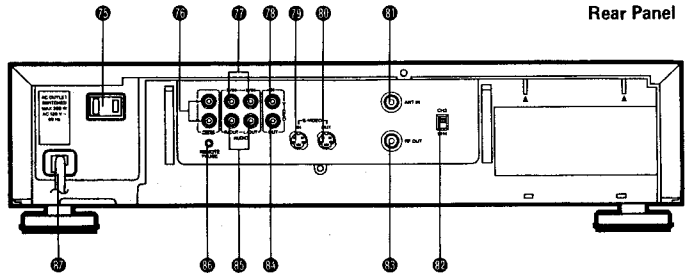
Front Panel



Remote Control Unit



Rear Panel



FEATURES

High-Quality Pictures and Sound

- **Super VHS recording and playback circuitry** ensuring super-quality pictures with a horizontal resolution of more than 400 lines.
- **Separated Y/C signal terminals (S-VIDEO IN and OUT)** for higher-quality dubbing and playback of Super VHS signals.
- **Full set of HQ (High Quality) System circuits** to ensure the best possible pictures in the regular VHS mode.
- **High-performance CCD luminance signal comb filter** for both Super VHS and VHS operation.
- **Super DA-4 head system** for superlative picture quality in all modes.
- **Hi-Fi VHS stereo sound with a dynamic range of more than 90 dB.**
- **Advanced switching noise reduction system** which applies switching point compensation independently for each channel.

Digital Functions

- **Digital Freeze** to freeze the action, with the soundtrack continuing unaffected.
- **Multi-Screen Digital Freeze** to sequentially display selected still pictures in a 4-, 9- or 16-frame Multi-Screen mode.
- **Digital Strobe** to change "frozen" images in sequence at 3 different speeds.
- **Multi-Screen Digital Strobe** to display still pictures on 4, 9 or 16 sub-screens at 3 different speeds.
- **Picture-In-Picture** to display a TV broadcast program in an inset window during tape playback, with Swap function to switch pictures between the main screen and the window.
- **Digital Mosaic** for modern art expressions available in 2 different patterns.
- **Digital Solarization** for fascinating color changes in 2 different tones.
- **Digital Zoom** to enlarge the center quarter, or any of the four corners, of the picture into a full-screen picture.
- **Multi-Screen Channel Scan** to sequentially display on sub-screens a still picture from each tuned-in channel.
- **Multi-Screen Intro Search** to sequentially display on sub-screens a still picture from the beginning of each recorded program identified by a CTL index code.
- **Automatic Recording of a Multi-Screen Intro Search image:** after the entire tape is scanned, the multi-screen picture is automatically recorded for about 10 seconds at the beginning of the tape.
- **Digitally-enhanced still, 5-step variable slow-motion, and 5-step variable fast-motion playback**

Special Features

- **LCD-programmable, TV/VCR unified remote control;** available functions include:
  - Independent timer programming using 4 built-in program memories and LCD display; the programmed data can be transferred to the recorder at any convenient time.
  - On-screen direct 10-key timer programming
  - All digital functions
  - All tape access functions
  - 10-Key direct-access channel selection
  - Audio monitor selection and output level control
  - Control of television for power on/off, channel selection, TV/VIDEO mode selection and volume setting (designated TVs only)
- **Auto Titler:** date, time and channel are recorded automatically at the beginning of a recording each time recording is initiated, or manually when requested; in playback, this recording data can be displayed on-screen.
- **Flying erase head** for professional-class insert edits.
- **VHS Index Search** with mark/erase functions; the half-loading mechanism allows the detecting of up to 9 index codes in the rewind, fast-forward or Shuttle Search mode.

Other Value Features

• 181-Channel cable-compatible frequency synthesized tuner • Built-in MTS decoder • 14-Day/8-event fully programmable timer • On-screen mode check and programming • Audio dubbing • Edit switch for best possible dubs • Hi-Fi recording level control with ALC switch • Peak-hold audio level indicators/Hi-Fi tracking meter • Variable audio output for more convenience in system integration • Timer-programmable FM simulcast recording • 60-Minute memory backup • Instant timer recording • Skip search • Intro Search • Counter go-to • Counter memory funnction • Next-function memory • Remaining tape time indicator • Automatic functions • Shuttle Search with latch function • Picture sharpness control • Electronic tracking controls • Switchable AC outlet • Headphone jack with adjustable output • Microphone jack

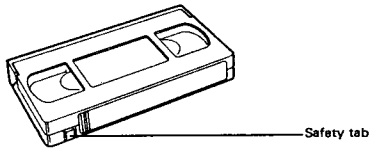
PRECAUTIONS

Handling and storage

- Avoid using the recorder under the following conditions:
  - extremely hot, cold or humid places,
  - dusty places,
  - near appliances generating strong magnetic fields,
  - places subject to vibrations, and
  - poorly ventilated places.
- Be careful of moisture condensation.
  Avoid using the recorder immediately after moving from a cold place to a warm place. The water vapor in warm air will condense on the still-cold video head drum and tape guides and may cause damage to the tape and the recorder.
- Handle the recorder carefully.
  - Do not block the ventilation openings.
  - Do not place anything heavy on the recorder.
  - Do not place anything which might spill and cause trouble on the top cover of the recorder.
  - Use in horizontal (flat) position only.
- In case of transportation,
  - Avoid violent shocks to the recorder during packing and transportation.
  - Before packing, be sure to remove the cassette from the recorder.

Video cassettes

- This recorder employs S-VHS and VHS cassettes only.
  S-VHS: ST-120 for 120(SP)/360(EP) minutes, ST-60 for 60/180 minutes and ST-30 for 30/90 minutes of recording.
  VHS: T-160 for 160(SP)/480(EP) minutes, T-120 for 120/360 minutes, T-90 for 90/270 minutes, T-60 for 60/180 minutes and T-30 for 30/90 minutes of recording.
- Video cassettes are equipped with a safety tab to prevent accidental erasure. When the tab is removed, recording cannot be performed. If you wish to record on a cassette whose tab has already been removed, use adhesive tape to block the hole.



- Avoid exposing the cassettes to direct sunlight. Keep them away from heaters.
- Avoid extreme humidity, violent vibrations or shocks, strong magnetic fields (near a motor, transformer or magnet) and dusty places.
- Place the cassettes in cassette cases and position vertically.

Moisture condensation

- If you pour a cold liquid into a glass, water vapor in the air will condense on the surface of the glass. This is called moisture condensation.
- Moisture condensation on the head drum, one of the most crucial parts of the video recorder, will cause damage to the tape.
- Moisture in the air will condense on the recorder when you move it from a cold place to a warm place, or under extremely humid conditions.
- In conditions where moisture condensation may occur, keep the power cord plugged in an AC outlet and the POWER switch set to ON; this would help prevent condensation from occurring. When condensation has occurred, it will not evaporate quickly once the power is switched on. Wait a few hours for the recorder to become dry.

Operation

- When a cassette is loaded, the power is switched on and, if the safety tab has been removed, playback begins automatically.
- The cassette can be unloaded even when the power is off. Pressing the EJECT button turns the power on and, after ejection of the cassette, shuts it off automatically in this case.
- As long as the TIMER button is engaged with the TIMER indicator lit, the POWER and EJECT buttons have no effect and unloading of a cassette is not possible. If a cassette has not yet been inserted, simply insert a cassette; the power will be switched on to load the cassette properly and, after completion of automatic loading, the Timer Recording Standby mode will be engaged with power off.

Remote control unit

- Avoid violent shocks, especially take care not to drop the unit.
- Take care not to allow liquid to spill into the unit or dampen the terminals.
- Do not place heavy objects on the unit.
- Avoid leaving the unit in places subject to direct sunlight or extremely high temperatures.

CONTROLS, INDICATORS AND CONNECTORS

Front Panel

❶ TV/VIDEO button
Selects between TV and VIDEO modes.
TV mode (the VIDEO indicator on the fluorescent display [FDP] is off): for TV viewing and for watching a TV program while recording another.
VIDEO mode ("VIDEO" appears on the FDP): for recording a TV program while watching it and for playing back recorded tapes. When the power is switched on, initially the TV mode is engaged. If you want to change the mode, press the TV/VIDEO button.

❷ POWER button with green indicator
Press to apply power to the HR-S8000U for recording or playback. The indicator will light. Loading a cassette also turns the power on.

❸ Cassette EJECT button

❹ Infrared beam receiving window (REMOTE SENSOR)

❺ S-VHS CASSETTE indicator
This LED lights when a cassette marked S-VHS is inserted, with the cassette mark also appearing on the fluorescent display panel (FDP). With a regular VHS cassette, only the cassette mark on the FDP lights.

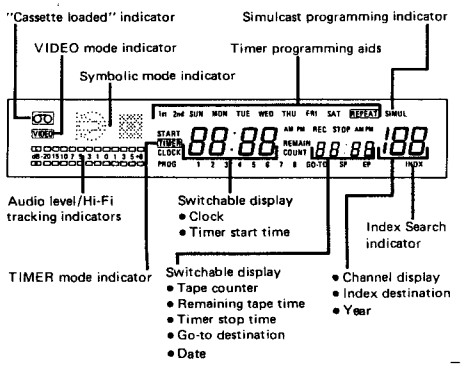
❻ S-VHS mode indicator
The "S-VHS" indicator illuminates when the S-VHS recording mode is selected with the S-VHS mode select button ⓱ or when S-VHS recordings are being played back. In playback, S-VHS recordings are automatically detected and played back in the S-VHS mode.

❼ DIGITAL indicator
Lights when a digital function is in operation.

❽ Cassette loading slot
Insert a VHS video cassette. The door will close and the indicator showing that a cassette is inside will appear on the FDP.

❾ Audio program indicators
SAP: Lights when a TV program accompanied by a second audio program is being received.
STEREO: Lights when a stereophonic program is being received.
SIMUL: Lights when the SOURCE SELECT switch ⓴ is set to SIMUL.
SAP REC: Lights when the SAP REC button ㉘ is pressed to record a second audio program on the normal audio track.

❿ Comprehensive fluorescent display panel (FDP)
Fully explained in relevant sections.



⓫ ZOOM UP indicator
Lights when the Digital Zoom is engaged.

⓬ MARK indicator
Blinks while an index code is being recorded.

⓭ ERASE indicator
Blinks while an index code is being erased. (The Erase mode is engaged by pressing the ERASE button.)

⓮ MULTI SCREEN indicators
An indicator (4, 9 or 16) corresponding to the selected number of sub-screens lights in the Multi-Screen mode.

⓯ AUDIO MONITOR indicators
The Hi-Fi indicator lights when Hi-Fi audio is selected with the AUDIO MONITOR button ㊱; the NORMAL indicator lights when normal audio is selected. Both indicators light when a mixture of the two is selected.

⓰ STROBE indicators
An indicator (1, 2 or 3) corresponding to the selected strobe speed lights in the Strobe mode.

⓱ PHONES jack
Connect a set of headphones for monitoring or private listening.

⓲ MIC jack
Connect a microphone for audio dubbing.

⓳ Band select switch (TV/CATV/HRC)
TV position: If your antenna system is regular broadcast VHF/UHF, VHF only or UHF only, set to this position.
CATV position: If your antenna system is a Cable TV Line with or without a CATV channel converter/decoder unit, set to this position.
HRC position: If your antenna system is an HRC (Harmonic Related Carrier) line, set to this position.

⓴ AFC switch
Normally set this switch to NOR. If no picture appears, reset the switch to SPCL.

㉑ AUTO TITLE switch
When this switch is set to ON, the date, time and channel are automatically recorded at the beginning of a recording each time recording is initiated from the Stop or Timer Standby mode. (See page 25.)

㉒ AC ONLINE switch
OFF position: Power flows through the rear panel AC OUTLET ㊴ regardless of whether the recorder is on or off.
ON position: Power flows only when the recorder is on. When used in combination with the built-in timer, this enables timer-controlled power supply for the connected equipment.

㉓ Tape control buttons
- **STOP button**
  To stop the tape.
- **PLAY/x2 button**
  Press once to play back a tape; press again for double-speed playback. Also press this button to cancel the Pause/Still, Slow or Shuttle Search mode. (See page 24.)
- **REC/ITR button**
  Press once for normal recording; again for instant timer recording; each subsequent press adds 30 minutes to the recording time to a maximum of 4 hours. (See page 26.)
- **PAUSE/STILL button**
  Press to stop the tape temporarily to avoid recording of unwanted material or to view a still picture. The still picture can be advanced each time this button is pressed.
- **REW button**
  To rewind the tape, press this button while in the Stop mode. To view the speeded-up picture in the reverse direction for program search, press this button while in the Play mode; press the PLAY/x2 button to return to normal playback. (See page 24.)
- **FF button**
  To fast forward the tape, press this button while in the Stop mode. To view the speeded-up picture in the forward direction for program search, press this button while in the Play mode; press the PLAY/x2 button to return to normal playback. (See page 24.)
- **VARIABLE SEARCH buttons**
  To control the search speed; both slow-motion and fast-motion search are available. The slow-motion speed can be changed in 5 steps; 1/6, 1/12, 1/18, 1/24 and 1/30 normal speed. For fast-motion search, available speeds are x1, x3, x5 and x7 in both directions and x2 in the forward direction in the SP mode; x1, x3, x5, x7 and x21 in both directions and x2 in the forward direction in the EP mode. No audio is available in the Variable Search mode. To cancel the Variable Search mode, press the PLAY/x2 button. (See page 24.)
- **INSERT button**
  Press for insert editing. (See page 41.)
- **AUDIO DUB button**
  Press together with the PLAY/x2 button for audio dubbing. (See page 40.)

㉔ INDEX button
Press to engage the Index Search mode. (See page 28.)

㉕ MARK button
Press during playback or recording to put an index code onto the tape. (See page 28.)

㉖ ERASE button
Press during playback to erase an index code. (See page 28.)

㉗ TRACKING -/+ buttons
If noise bars are seen during playback, use these buttons to reduce them. The tracking is reset to normal when both buttons are pressed together, a cassette ejected, or the power turned off.
These TRACKING buttons can also be used to adjust hi-fi tracking, referring to the hi-fi tracking meter. (See page 20.)

㉘ Hi-Fi AUDIO REC LEVEL controls
See page 19.

㉙ SAP REC button
Press this button when recording the SAP program on the normal audio track. The SAP REC indicator ❾ will light.

㉚ AM/PM/SIMUL button
Press this button to specify AM or PM in clock or timer setting. This button is also used to program timer-controlled FM simulcast recording.

㉛ ON SCREEN button
The 5-second on-screen display for mode check is automatically available each time the mode is changed or called up manually by pressing the ENTER button ㉟ or this ON SCREEN button. (See page 22.) The on-screen display for timer programming, which is called up by pressing the PROGRAM button ㉞, can be cancelled by pressing the ON SCREEN button. (See page 37.)

㉜ CLOCK ADJ button
Press this button for clock setting. (See page 21.)

㉝ GO-TO button
Press to engage the counter Go-To mode. (See page 30.)

㉞ Multi-purpose numeric keys
Channel selection : Page 15
Clock setting : Page 21
Index Search : Page 28
Counter Go-To : Page 30
Timer programming : Page 36

㉟ ENTER button
Press to restore a skipped channel or to tune to the selected channel instantly (see page 16). Also use to call up the mode check display on the TV screen (see page 22) or for timer programming and clock setting.

㊱ PROGRAM button
Press this button when you want to preset the timer for unattended recording. (See page 36.)

㊲ SP/EP select button
Press to SP position when you wish recordings to be made in the SP (Standard Play) mode. When you wish to record longer TV shows or for unattended and prolonged recording of a number of TV shows with a combined time of up to 8 hours (with a T-160 cassette), press to EP (Extended Play).

㊳ CANCEL/SKIP button
Press to skip unnecessary channels. (See page 16.)
In the program set mode, it can function as the CANCEL button. (See page 39.)

㊴ TIMER button
Press to engage the Timer Standby mode after you have preset the timer for unattended recording.

㊵ DISPLAY button
Press to switch the smaller 4-digit display in the sequence of tape counter to remaining tape time display to date. (See pages 27 and 29.)

㊶ CHANNEL/CURSOR (NEXT/BACK) buttons
Press either button to select a desired channel. Can also be used as cursor keys in clock setting and timer programming.

㊷ COUNTER RESET button

㊸ PICTURE SHARPNESS control
Use this control to make the picture sharper or softer. Effective only for playback pictures. (No effect for recording.)

㊹ PHONES LEVEL control
Adjusts the level of the audio output from the headphone jack ⓱.

㊺ V.LOCK control
When operating in the Still, Freeze or Strobe mode, turn this control to eliminate vertical vibrations of the picture, if observed.

㊻ AUDIO MONITOR button
Press to select the audio output. Each time the button is pressed, the soundtrack to be output changes (Hi-Fi stereo, normal, or mixed playback) and is indicated by the Hi-Fi and NORMAL indicators ⓯.

㊼ S-VHS mode select button
This button switches between S-VHS and VHS recording modes. When the S-VHS mode is selected, the S-VHS indicator ❻ illuminates. S-VHS recordings are possible only when S-VHS cassettes are used in the S-VHS recording mode.

⑭ EDIT switch
Normally set to OFF. For making multi-generation dubs, set it to the ON position. (See page 42.)

⑮ COUNTER MEMORY switch
When this switch is set to ON, the tape will stop automatically at the counter reading of about "0000" in the Rewind or Fast Forward mode.

⑯ SOURCE SELECT switch
For selecting the recording input signal.
TUNER: To record signals coming from the built-in tuner.
SIMUL: To record the video signal and normal audio signal from the built-in tuner and the hi-fi audio signal from the rear panel AUDIO IN connectors. When recording FM simulcast TV programs, use this position.
AUX: To record signals coming from a unit connected to the VIDEO IN and AUDIO IN connectors.

⑰ LEVEL INDICATOR switch
Selects the function of the audio level/hi-fi tracking meter on the FDP.
ON: To obtain the indication of audio level.
OFF: To turn the meter off.
Hi-Fi TRACK: To use the meter for hi-fi tracking adjustment.

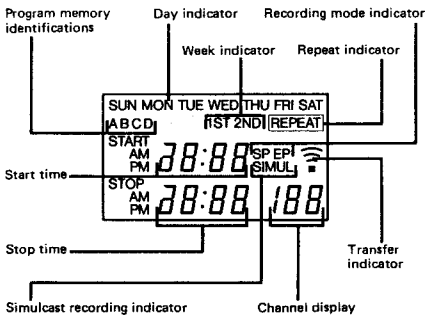
㉜ VIDEO IN SELECT switch
When the SOURCE SELECT switch ⑯ is set to AUX, set this VIDEO IN SELECT switch according to the source connection.
VIDEO: Set to this position when recording a source connected to the VIDEO IN connector.
S: Set to this position when recording a source connected to the S-VIDEO IN connector ㊼ (which accepts separated luminance and chrominance signals).

㉝ ALC switch
Set to ON to activate the automatic level control circuit for Hi-Fi audio. For manual control of the hi-fi audio recording level, set this switch to OFF and use the Hi-Fi AUDIO REC LEVEL controls ㉘ for adjustment.

Remote Control Unit

The infrared remote control unit gives you full operation control from your viewing position. All control buttons, except those separately explained, have the same function as the corresponding buttons on the recorder. However, in the case of the REC button, to start recording, both the REC and PLAY/x2 buttons must be pressed simultaneously. The maximum operating distance is about 8 m (26 ft).

㊳ LCD (Liquid Crystal Display) panel
Refer to this panel when programming the remote control's built-in timer memory.



㊴ MEMORY PROG. button
Press to program the remote control's timer memory.

㊵ MEMORY CANCEL button
Press to cancel the programmed data in the remote control's timer memory.

㊶ MEMORY TRANS button
Press to transfer the data held in the memory to the recorder.

㊷ CURSOR (BACK/NEXT) buttons
Use these buttons to advance the cursor or move it back to a previous position during timer programming.

㊸ INTRO button
Press to engage the Intro Search mode. See pages 29 and 35.

㊹ SKIP SEARCH button
In the Play mode, press once to zip (advance rapidly) through the following 30 seconds of tape. This button may be pressed up to four times to zip through 2 min. of tape. Press PLAY to cancel the Skip Search mode. (See page 23.)

㊺ VCR VOL. (+/–) buttons
Press these buttons to adjust volume of an audio amp or TV connected to the rear panel VARIABLE AUDIO OUT connectors ㊻.

㊻ VCR CH (∨/∧) buttons
Press either button to select desired channels received by the VCR's built-in tuner.

㊼ TV CH ∨/∧ buttons
Press to scan to a desired channel on the TV receiver.

㊽ TV VOL. (–/+) buttons
Press "–" or "+" to decrease or increase the TV's sound volume.

㊾ TV/VIDEO MONITOR button
Press to select TV's Video mode or TV mode. (Designated TV models only.)

㊿ POWER (TV) button
Press to turn the TV power on or off. (Designated TV models only.)

(51) SWAP button
While in the Picture-In-Picture mode, press to switch the pictures between the main screen and window.

(52) TWIN PICTURE button
During tape playback, press to display a TV broadcast program in an insert window (Picture-In-Picture mode). Additional pressing of this button shifts the position of the window.

(53) ZOOM UP button
Press to zoom up the desired quarter of the picture to fill the screen. (See page 33.)

(54) ART button
Press to select the desired digital art effects; two different solarization effects and two different mosaic patterns are available in sequence. (See page 33.)

(55) DIGITAL MEMORY button
Press to engage the digital memory for a variety of digital functions. See pages 31 to 35.

(56) MULTI SCREEN button
Press to select the desired number of sub-screens (4, 9 or 16) for a variety of multi-screen functions. See pages 31 to 35.

(57) STROBE SPEED button
Press to select the desired strobe speed in the Strobe or Multi-Screen Strobe mode. See page 32.

(58) OFF button
Press to disengage any digital function and restore normal pictures. See pages 31 to 35.

Remote Control Unit

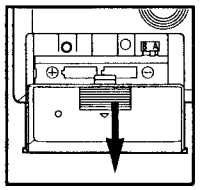
A/B mode switching
A switch on the back of the remote control labelled A/B is accessible when the battery compartment cover is removed.
- This switch is preset to the "A" position. Do not touch it unless you use two JVC video decks side by side.
- When you place two JVC video decks near each other, use this remote control in the "B" mode to prevent both decks from responding simultaneously to this remote control's signals. For this purpose, carefully follow the instructions below:

(1) Unplug the power cord of the HR-S8000U from the AC outlet.
(2) Set the remote control unit's A/B mode switch to "B".
(3) Plug the power cord of the HR-S8000U into the AC outlet.
(4) Turn on the power of the HR-S8000U using the remote control's VIDEO POWER button.
- The HR-S8000U "memorizes" this B code and then will respond only to the signals of this remote control unit. The other deck will respond only to its remote control.

Note:
Do not operate other remote controls after you have plugged the HR-S8000U into the AC outlet and before you press the VIDEO POWER button of this remote control.

CAUTION: Some televisions may malfunction in response to this remote control when used in the "B" mode. If this should happen, switch the mode back to "A".

Installing the batteries
1. Slide the battery compartment cover on the rear of the unit in the direction of the arrow (▶).
2. Insert 2 "AA"-size batteries (provided) in the correct directions into the battery compartment.
3. Replace the cover.



Rear Panel

(59) AC OUTLET
Connect the power cord of other audio or video equipment (such as an FM tuner) requiring less than 300 watts of power. The power flow through this outlet is controlled by the AC ONLINE switch ㉙.

(60) VARIABLE AUDIO OUT terminals
Connect to the AUDIO IN terminals of another video recorder for tape-to-tape transfer, or the AUDIO IN terminals of a television or video monitor for playback. Convenient for connecting a non-JVC-brand TV in order to control that TV's volume with the VCR VOL. (+/-) buttons ㊺ on the remote control unit.

(61) AUDIO IN terminals
Connect to the AUDIO OUT terminals of another video recorder for tape-to-tape transfer, or the AUDIO OUT terminals of the camera adapter for camera recording.

(62) VIDEO IN terminal
Connect to the VIDEO OUT terminal of another video recorder for tape-to-tape transfer, or the VIDEO OUT terminal of the camera adapter for camera recording.

(63) S-VIDEO IN connector
This is a special connector (4-pin) to accept separated luminance and chrominance signals. To record this type of vodeo signal, connect an appropriate source to this terminal using the provided video cable. Use the AUDIO IN connectors for making audio signal connections. When recording from this connector, set the VIDEO IN SELECT switch ㉜ to S.

(64) S-VIDEO OUT terminal
This is a special connector (4-pin) to deliver separated luminance and chrominance signals. For tape-to-tape transfer of S-VHS recordings, connect this terminal to the S-VIDEO IN terminal of a 2nd S-VHS video recorder using the provided video cable. Or connect to the same type of connector of a television or monitor equipped with an S-VIDEO input terminal. In these cases, use the AUDIO OUT terminals ㊱ or ㊲ for making audio connections.

(65) ANT IN terminal
Connect the antenna cable or a Cable TV Line. If necessary, use the matching transformer (provided).

(66) RF output channel select switch
See "VIDEO CHANNEL SETTING" on page 14.

(67) RF OUT terminal
Connect to the all-channel antenna connector (female F) of a TV receiver using the antenna cable (provided). If your TV receiver has separate VHF/UHF 300-ohm antenna terminals only, use the antenna splitter (provided) to connect the antenna cable to these terminals.

(68) VIDEO OUT terminal
Connect to the VIDEO IN terminal of another video recorder for tape-to-tape transfer, or the VIDEO IN terminal of a video monitor for playback.

(69) AUDIO OUT terminals
Connect to the AUDIO IN terminals of another video recorder for tape-to-tape transfer, or the AUDIO IN terminals of a video monitor for playback.

(70) REMOTE PAUSE terminal
When using a JVC video camera, connect the remote control cable of the camera adapter to this terminal for the purpose of controlling the starting and stopping of the tape with the camera's start/stop switch.

(71) AC power cord
Connect to an AC 120 V∿, 60 Hz household outlet.

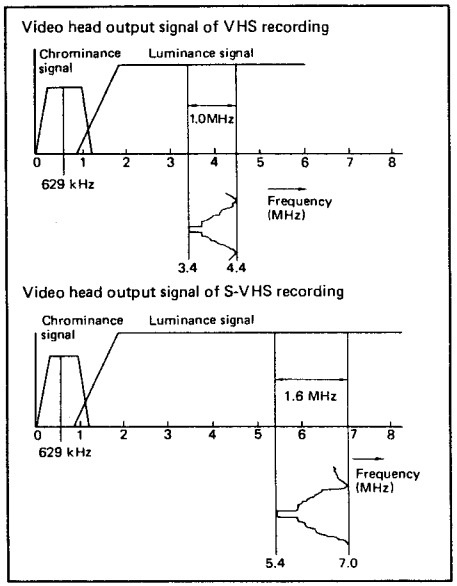
FOR A BETTER UNDERSTANDING OF S-VHS AND VHS

S-VHS vs. VHS

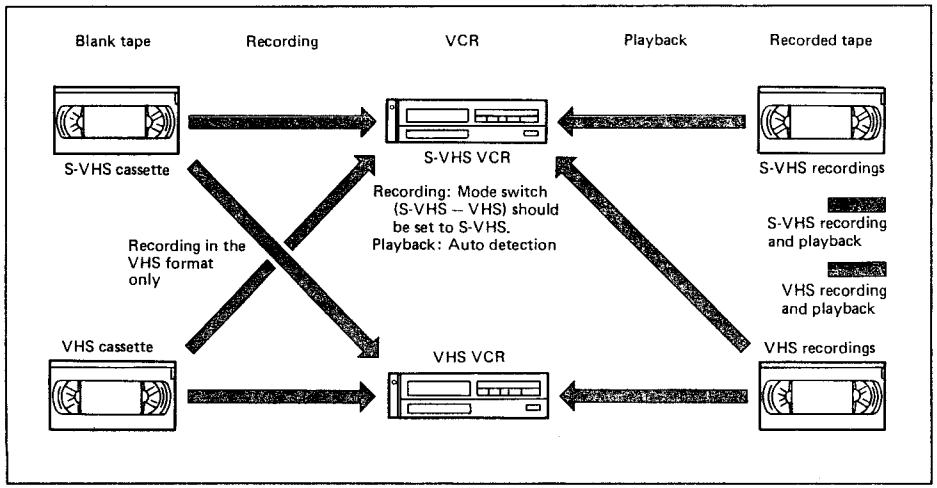
- VHS is the world's most popular video format. If you owned a VCR before the HR-S8000U, most likely it was a VHS machine.
- **S-VHS is a new video sub-format based on VHS. It offers superior picture quality with a horizontal resolution of more than 400 lines by shifting the FM carrier frequency of the luminance signal from the conventional 3.4 – 4.4 MHz range to a higher one of 5.4 – 7 MHz.**

- The HR-S8000U is equipped for recording and playback in both the S-VHS and VHS formats. Therefore, you can still play back your VHS software programs and previously recorded family recordings.
- You can switch to the world of S-VHS for your new recordings to enjoy breath-taking picture quality. Or to exchange recordings with someone whose VCR is not S-VHS, simply record in the VHS mode, whether with a regular VHS cassette or an S-VHS cassette.

Recording Signal Spectrum

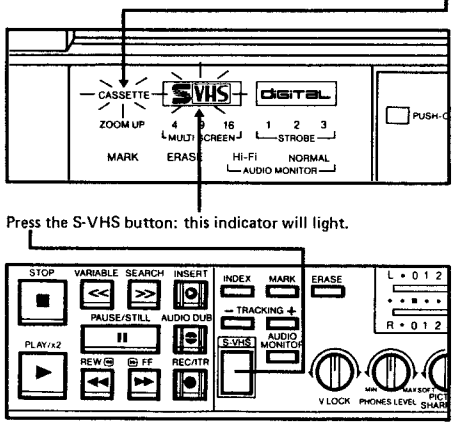


Compatibility between S-VHS and VHS



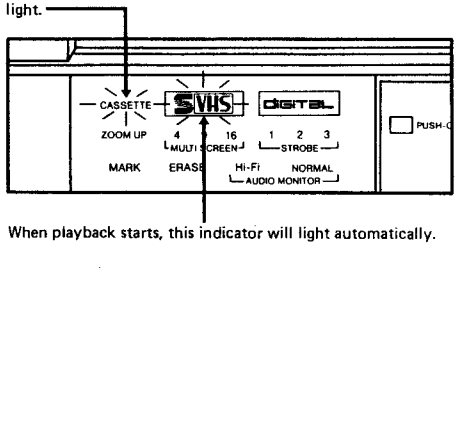
S-VHS Recording

Insert an S-VHS cassette: this indicator will light.



S-VHS Playback

Simply insert a recorded S-VHS cassette: this indicator will light.

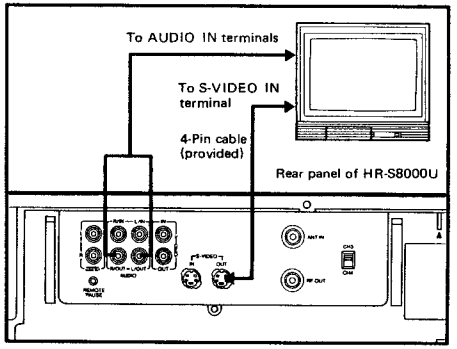


How to take best advantage of S-VHS pictures

For flexibility, the HR-S8000U offers two sets of video input/output terminals: one for the regular composite video signal in which the luminance (Y) and chrominance (C) signals are mixed together, and the other for the separated Y/C signals.
No special connections are necessary to record and play back broadcast programs. Simply follow the connecting instructions on the next page.

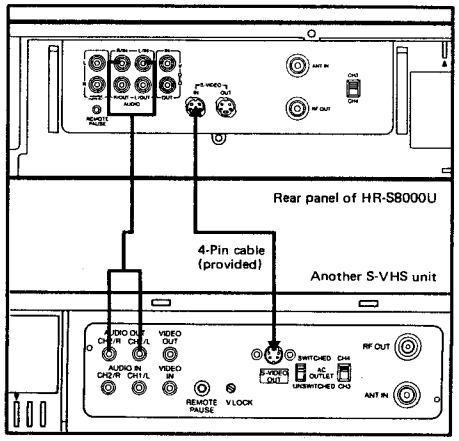
Using a television with S-VIDEO input

If your television is equipped with an S-VIDEO input (separated Y/C signals) terminal, this is an ideal way to enjoy the best possible S-VHS picture, because no interference occurs between the luminance and chrominance signals.
Connect the S-VIDEO OUT terminal of the HR-S8000U to the S-VIDEO IN terminal of your television. To view video cassettes with this setup, set the TV to the VIDEO mode. (It is not necessary to set the TV to channel 3 or 4.)
With JVC's AV televisions, switching to the VIDEO mode can be performed on the HR-S8000U's remote control (MONITOR TV/VIDEO button).



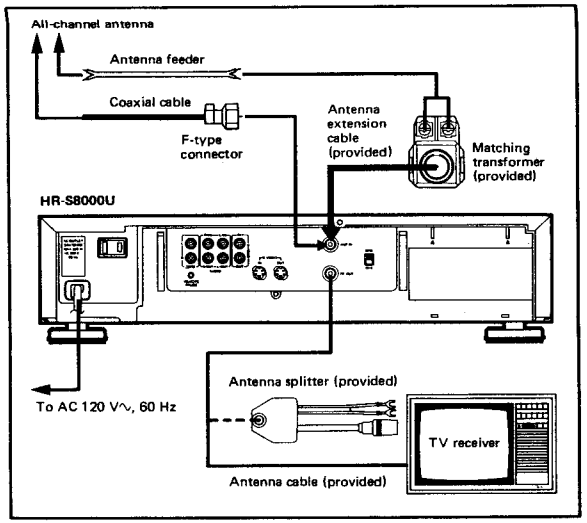
Recording from other S-VHS equipment

For recording sources which deliver separated Y/C signals, use the S-VIDEO IN connector and proceed as follows:
1. Insert an S-VHS cassette.
2. Switch to the S-VHS mode.
3. Set the SOURCE SELECT switch to AUX.
4. Set the VIDEO IN SELECT switch to S.

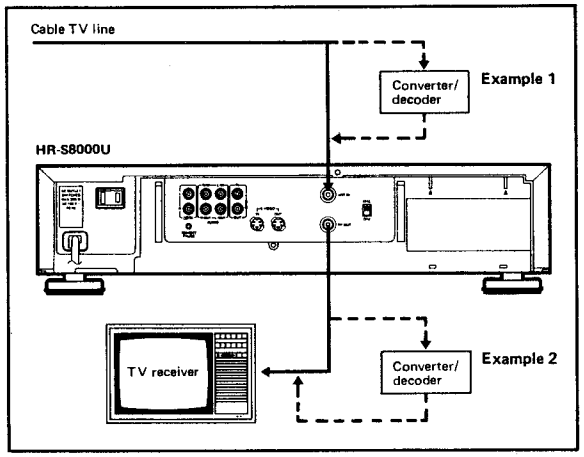


CONNECTIONS

TO VHF AND UHF ANTENNAS



TO CABLE TV LINE



Note:
If your cable TV system does not require a converter/decoder for scrambled signals, you can use the cable-compatible tuner built into the HR-S8000U for viewing and recording. In this case, simply connect the cable TV line to the ANT IN terminal of the recorder and the RF OUT terminal of the recorder to your TV receiver. Please contact your cable TV company for any questions concerning hookups or cable TV operation.

Procedure
- Remove the antenna cable from the TV receiver and reconnect to the HR-S8000U's ANT IN connector as illustrated. The HR-S8000U is then ready to record off-air programs.

  Notes:
  - If your antenna cable is a 300-ohm flat feeder, use the provided matching transformer .
  - If your antenna system has separate VHF/UHF lead-in wires, use an antenna mixer and connect its output to the HR-S8000U's ANT IN connector, either directly or through the provided matching transformer depending on the type of the mixer.
- Connect the HR-S8000U to the TV receiver using the 75-ohm antenna cable (provided).

  Note: If your TV is equipped with 300-ohm UHF input terminals and a 75-ohm VHF input terminal, use the antenna splitter (provided) to complete connection.

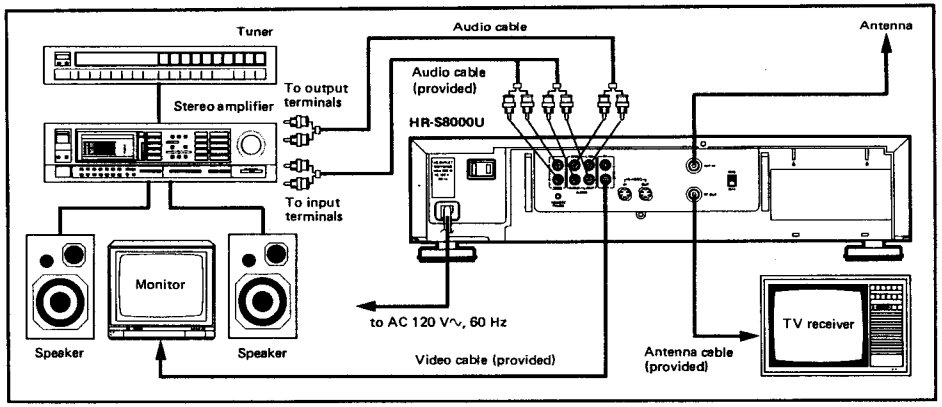
As this unit uses the latest digital technology, some care should be taken in connecting the antenna cable. If TV picture interference or distortion occurs, first check whether the proper connections have been made. If there is no improvement, proceed to connect the **provided antenna extension cable** between the matching transformer and the HR-S8000U, and place the matching transformer away from the unit so that the picture clears.

Example 1
- You can record any scrambled cable TV channel while watching it.
- Select the recording channel on the converter/decoder.
- Set the recorder to the output channel of the converter/decoder (channel 3 or 4).
- Set the TV receiver to channel 3 or 4.
- Set the TV/VIDEO button on the recorder to VIDEO (the VIDEO indicator on the FDP lights).

Example 2
- You can record any non-scrambled cable TV channel while watching it or any other channel including "scrambled signal" channels.

  Note: "Scrambled signal" channels cannot be recorded.
- Select the recording channel on the recorder.
- Select the viewing channel on the converter/decoder.
- Set the TV receiver to the output channel of the converter/decoder (channel 3 or 4).
- Set the TV/VIDEO button as necessary.

TO A STEREO SYSTEM



Procedure
- Connect the AUDIO IN L and R connectors of the HR-S8000U to the recording output terminals of the amplifier. (Exactly as one hooks up an audio cassette deck.)
- Connect the AUDIO OUT or VARIABLE AUDIO OUT connectors of the HR-S8000U to the AUX IN or TAPE MONITOR terminals of the amplifier.

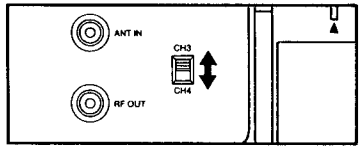
Application
- With this setup, you can enjoy prerecorded Hi-Fi VHS tapes in stereo while viewing them on a regular TV receiver, and also you can record FM simulcast television programs with hi-fi audio accompaniment. See page 40.
- You can also record only audio (without recording any video signal) on both hi-fi and longitudinal audio tracks. This means you can record a continuous 8-hour FM program onto a single cassette (T-160 cassette). See page 40.
- If you want to timer-control the recording of FM simulcast programs, connect the tuner's power cord to the HR-S8000U's AC outlet. Set the AC ONLINE switch to ON, and both the tuner and the HR-S8000U will be switched on at a time preprogrammed by the HR-S8000U. Timer-controlled recording of FM simulcast programs is not possible with the type of tuners which reset the channel each time the power is switched off.

CAUTION:
- The HR-S8000U has a dynamic range of more than 90 dB with regards to its hi-fi audio capability. It is recommended that you check the maximum level if you are going to listen to the hi-fi audio signals through a stereo amplifier. A sudden surge in speaker input may cause speaker damage.
- Some speakers and televisions are specially shielded to prevent television interference. If both are of the non-shielded type, do not place the speakers adjacent to the TV set, otherwise the video playback picture will not be normal because of mutual interference.

VIDEO CHANNEL SETTING

The built-in RF converter permits playback of video and audio recordings through a TV receiver.
The signals from the RF converter are viewed through a vacant channel not used for broadcasting in your viewing area.

(Rear)



The converter channel of all units is set to 3 prior to shipment from the plant. Reset the channel to 4 in areas where channel 3 is employed for broadcasting.

For this purpose, slide the channel select switch on the rear of the unit to CH 4.

This is YOUR video channel. To view video cassettes, always set the TV channel selector to either channel 3 or 4.

OPERATING THE BUILT-IN TUNER

The HR-S8000U incorporates an advanced frequency synthesized tuner which is pretuned to VHF channels 2 through 13, UHF channels 14 through 69 and 113 (excluding 12 VHF broadcasts) cable TV channels* (including mid, super, hyper and ultra bands). There is no need to preset the tuner; it automatically receives the broadcast corresponding to the channel number displayed.

*In Canada: 110 (excluding 12 VHF broadcasts) cable TV channel capability.

Note: If the picture is not clear, perform fine tuning on your television.

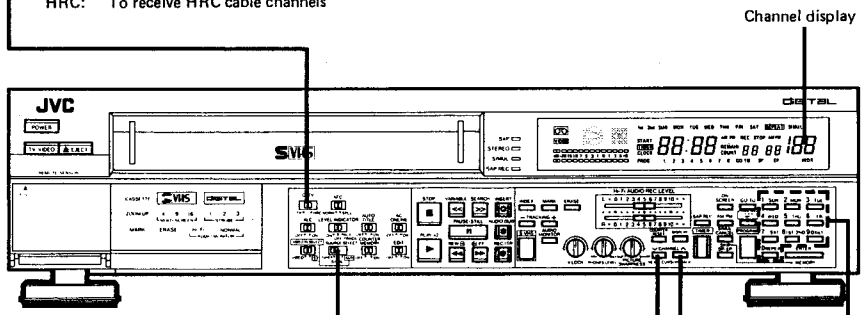
Stored and skipped channels

A total of 181 channels are receivable. However, to prevent the tuner from scanning all the frequencies to reach your desired station, some channels are skipped. It is possible to restore the skipped channels whenever necessary. Also, it is possible to skip more channels if there are no broadcasts on those channels in your area.

Prior to shipment, the following channels are stored for instant tuning.

BAND switch setting	Channels
CATV	VHF 2 through 13 CATV 14, 18, 23, 29, 36, 48, 49
TV	VHF 2 through 13 UHF 14, 15, 17, 18, 20, 22, 23, 25, 27, 29, 30, 32, 35, 36, 40, 44, 48, 49

Band select switch
TV: To receive VHF/UHF channels
CATV: To receive cable TV channels
HRC: To receive HRC cable channels



Scanning channels

Channels can be "called up" in ascending or descending order by using the CHANNEL ∨/∧ buttons on the front control panel. To scan channel numbers which are higher than the channel being received, press and hold the CHANNEL "∧" button. Release when the desired channel is reached. Press and hold the CHANNEL "∨" button to scan lower numbered channels. Release when the desired channel is reached.

Selecting channels

1. To select a channel, simply press the numeric keys. The channel number selected will appear on the display; the channel will change automatically within 2 to 3 seconds after the last numeric key is pressed.
2. To change channels immediately, press the ENTER button after pressing the numeric keys.

Note:

- If an invalid channel is entered, the entered data is cleared and the display returns to the previous number.

Programming favorite channels

Skipping unused channels makes it possible to scan only those channels which are active in your area.

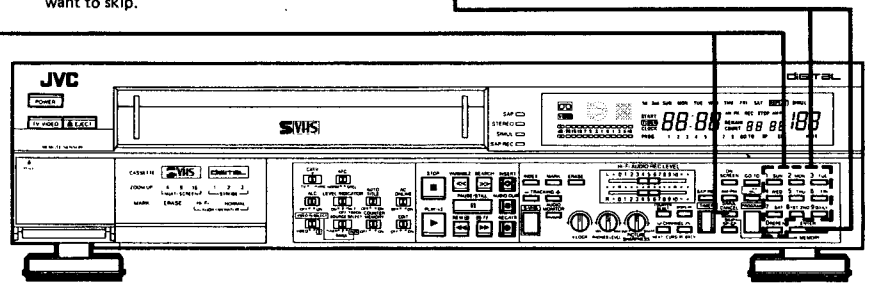
Skipping channels

1. Select the channel you want to skip with numeric keys or up/down tuning.
2. Press CANCEL/SKIP.
   - The letters "PO" will appear momentarily in place of the channel number, indicating that the corresponding channel has been skipped.
   - The channel is now eliminated from the up/down scanning sequence. Repeat for each channel you want to skip.

Storing channels

1. Press the numeric keys to select the channel you want to re-enter.
2. Press ENTER within 2 seconds.
   - The channel "entered" will now be available when the channel scanning sequence is used.

Note:
If the recorder is unplugged from the AC outlet, or there has been a power interruption, favorite channel programming will be maintained. There is no need to re-program channels.



Cable (CATV) Channel Reference Chart

The Cable TV (CATV) Channel Reference Chart is supplied for your convenience. Fill in the name or number of the actual station being provided by your CATV company on each CATV channel. (Your CATV company should give you this information.)
If the TV tuner is NOT connected to a CATV antenna system, it is important that the Band Select switch be in the TV position to properly receive VHF channels 2 through 13 and UHF channels 14 through 69.
Note: CATV channels A-1, A-2 & A-8 are not available in Canada.

CATV channel	2	3	4	4a (A-8)	5 (A-7)	6 (A-6)	A-5	A-4	A-3	A-2	A-1	A	B	C	D	E	F	G
Channel number indication	2	3	4	1	5	6	95	96	97	98	99	14	15	16	17	18	19	20
Actual TV station																		
CATV channel	H	I	7	8	9	10	11	12	13	J	K	L	M	N	O	P	Q	R
Channel number indication	21	22	7	8	9	10	11	12	13	23	24	25	26	27	28	29	30	31
Actual TV station																		
CATV channel	S	T	U	V	W	W+1 (AA)	W+2 (BB)	W+3 (CC)	W+4 (DD)	W+5 (EE)	W+6 (FF)	W+7 (GG)	W+8 (HH)	W+9 (II)	W+10 (JJ)	W+11 (KK)	W+12 (LL)	W+13 (MM)
Channel number indication	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Actual TV station																		
CATV channel	W+14 (NN)	W+15 (OO)	W+16 (PP)	W+17 (QQ)	W+18 (RR)	W+19 (SS)	W+20 (TT)	W+21 (UU)	W+22 (VV)	W+23 (WW)	W+24 (XX)	W+25 (YY)	W+26 (ZZ)	W+27 (AAA)	W+28 (BBB)	W+29	W+30	W+31
Channel number indication	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
Actual TV station																		
CATV channel	W+32	W+33	W+34	W+35	W+36	W+37	W+38	W+39	W+40	W+41	W+42	W+43	W+44	W+45	W+46	W+47	W+48	W+49
Channel number indication	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
Actual TV station																		
CATV Channel	W+50	W+51	W+52	W+53	W+54	W+55	W+56	W+57	W+58	W+59	W+60	W+61	W+62	W+63	W+64	W+65	W+66	W+67
Channel number indication	86	87	88	89	90	91	92	93	94	100	101	102	103	104	105	106	107	108
Actual TV station																		
CATV channel	W+68	W+69	W+70	W+71	W+72	W+73	W+74	W+75	W+76	W+77	W+78	W+79	W+80	W+81	W+82	W+83	W+84	
Channel number indication	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	
Actual TV station																		

INFORMATION ON THE HR-S8000U'S AUDIO SYSTEM

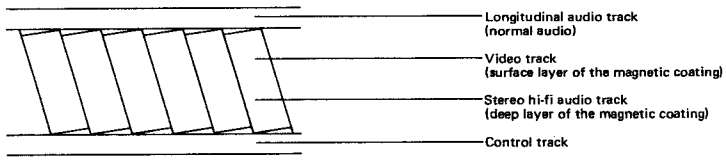
Hi-Fi and normal audio

To provide true hi-fi audio accompaniment to video entertainment and, at the same time, compatibility with regular VHS tapes, the HR-S8000U employs a unique audio recording system. Hi-fi audio signals (2-channel) are recorded deep into the tape's magnetic coating, and the video signal is recorded on top of the audio signals in a shallower layer. At the same time, another audio head records normal audio signals (monaural) onto the usual longitudinal audio track. Since this longitudinal audio track is exactly the same as on regular VHS tapes, tapes recorded on the HR-S8000U can be played back on other VHS machines, and vice versa.

CAUTION:

- The hi-fi soundtrack recorded with the HR-S8000U cannot be reproduced with video equipment other than Hi-Fi VHS.
- Tapes recorded with a conventional stereo video recorder produce monaural sound when played back with the HR-S8000U.

Tape pattern recorded with the HR-S8000U



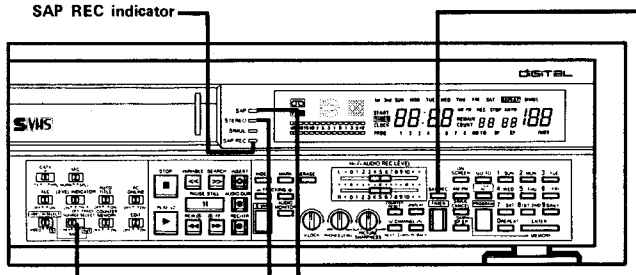
Hi-fi audio recording and reproduction are available only from the hi-fi audio track while the longitudinal audio track provides normal audio.

The hi-fi and normal soundtracks are recorded simultaneously, and audio dubbing is applicable only to the normal audio.

MTS (Multichannel Television Sound) compatibility

When stereo and SAP programs are being received, the indicators light to inform you of the type of broadcasts. Then you can select the desired soundtrack for recording with a single switch.

The normal (longitudinal) audio track is monaural. Therefore, stereo programs are recorded in mono on the normal audio track. SAP programs can only be recorded on the normal audio track.



SAP REC button
This button selects the soundtrack to be recorded on the normal audio track when an MTS broadcast is being received and functions only when the SOURCE SELECT switch is set to either TUNER or SIMUL.

- Press to record an SAP soundtrack on the normal audio track. (The main soundtrack, either mono or stereo, will be recorded on the hi-fi audio track.)
- Release to record a main soundtrack on the normal audio track. Stereo programs will be recorded in mono (L + R mixed) on the normal audio track (and in stereo on the hi-fi audio track).

STEREO indicator
Lights when a stereo program is being received. Stereo programs are always recorded in stereo on the hi-fi audio track.

SAP indicator
Lights when an SAP program is being received. For recording the SAP soundtrack, press the SAP REC button. The SAP REC indicator will light.

If the STEREO and SAP indicators light, it means that a stereo + SAP program is being received. If you want to record both soundtracks, press the SAP REC button. (The SAP REC indicator will light). Then the stereo soundtrack will be recorded on the hi-fi audio track and the SAP soundtrack will be recorded on the normal audio track.

Note:

- Off-air MTS programs are received in accordance with the *Broadcast Television Systems Committee (BTSC) standard.* The method of transmission of stereo programs via cable varies from area to area and may not be compatible with *the BTSC standard. Consult your local cable company for* compatibility in your area.

Recording options according to the settings of the SOURCE SELECT switch

SOURCE SELECT switch position \ Track	Video track	Normal audio track (mono)	Hi-fi audio track (2-channel)
TUNER (SOURCE SELECT: TUNER)	TV picture (from built-in tuner)	**TV sound (from built-in tuner) (Mixing with microphone input is possible.)**	
SIMUL (SOURCE SELECT: SIMUL)	TV picture (from built-in tuner)	TV sound (from built-in tuner)	Audio signal from AUDIO IN (Mixing with microphone input is possible)
AUX (SOURCE SELECT: AUX)	Video signal from VIDEO IN or S-VIDEO IN (depending on the setting of VIDEO IN SELECT switch)	Audio signal from AUDIO IN (Mixing with microphone input is possible.)	

Note:

- You can record audio only (without recording any video signal) on the normal and hi-fi audio tracks. This means you can record a continuous 8-hour FM program onto a single cassette (T-160). For this purpose, set the SOURCE SELECT switch to AUX and connect an audio source, such as an FM tuner, to the AUDIO IN connectors. Nothing should be connected to the VIDEO IN connector.

Recording options according to the type of broadcasts and the setting of the SAP REC button (indicated by the SAP REC indicator)

Type of broadcast \ Audio track / SAP REC button and SAP REC indicator		Normal audio track (mono)	Hi-fi audio track (2-channel)	
			L	R
Regular broadcast (monaural audio)	Either position	Mono	Mono	Mono
Regular + SAP (Second audio program)	Released (SAP REC)	Main audio	Main audio (mono)	Main audio (mono)
	Pressed in (SAP REC)	Second audio	Main audio (mono)	Main audio (mono)
Stereo + SAP (Second audio program)	Released	L + R mixed	Stereo	
	Pressed in	Second audio	Stereo	
Stereo broadcast	Either position	L + R mixed	Stereo	

Note:

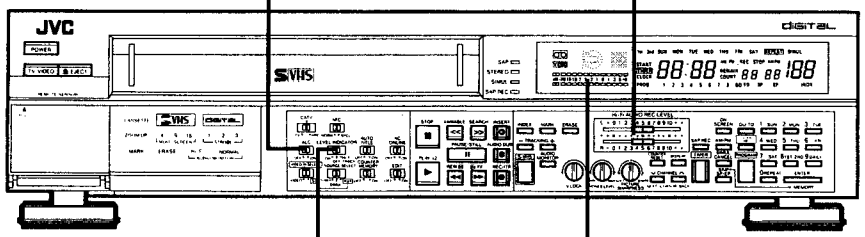
- Second audio programs cannot be recorded on the hi-fi audio track.

Hi-Fi audio recording level adjustment

While recording onto the normal audio track is controlled by the built-in Automatic Level Control (ALC) circuit, hi-fi audio recording has two control options: manual and automatic.

ALC switch
Setting this switch to ON activates the built-in audio limiter circuit for both channels so that the recording level is automatically controlled. For manual adjustment, set this switch to OFF. (The recording level for normal audio is always controlled automatically regardless of the setting of the switch.)

Hi-Fi AUDIO REC LEVEL controls
Slide these controls, the upper for left channel and the lower for right channel, for manual adjustment of the hi-fi audio recording level.



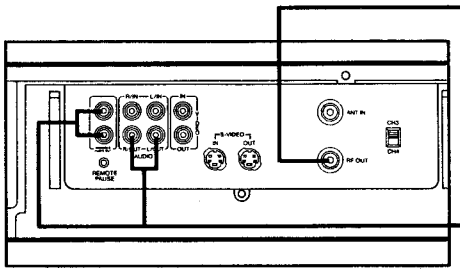
LEVEL INDICATOR switch
For manual control of the recording level, set this switch to ON so that the audio level indicators on the FDP will light.

Audio level indicators
For manual control of the recording level, first set the relevant switches as follows:
ALC → OFF
LEVEL INDICATOR → ON
AUDIO MONITOR → Hi-Fi
Then slide the Hi-Fi AUDIO REC LEVEL controls referring to these indicators. When indicators up to or near 0 dB light for the loudest signal being received, the recording level is optimum. (The level at which only one red indicator lights from time to time may be most appropriate.)
During playback, these indicators show the level of audio signals recorded on the tape and selected with the AUDIO MONITOR button.
If no signal is recorded on the hi-fi audio track, the level of normal audio is automatically indicated.
These indicators do not light when the LEVEL INDICATOR switch is in the OFF position.

Notes:
- With the AUDIO MONITOR select button in the NORMAL position, the recording level of hi-fi audio signals cannot be correctly indicated. Select the Hi-Fi position when adjusting the recording level.
- The normal audio signal level is also displayed by these indicators, but cannot be adjusted.

Dual-audio playback flexibility

Two different types of audio tracks (hi-fi and normal) allow a variety of playback options depending on the connection and the settings of relevant controls and switches.



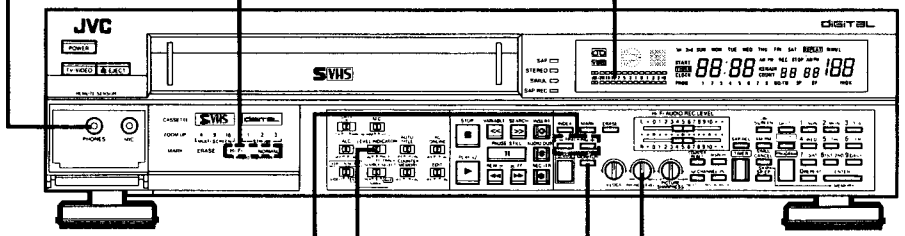
RF OUT connector
Delivers audio and video signals to a TV receiver. When the recorder is not used, the antenna signal is supplied from this connector to the TV receiver to allow regular TV viewing. When a video tape is played back through the RF OUT connector, the audio is reproduced always as monaural; with hi-fi stereo tapes, both channels are mixed or the one selected by the AUDIO MONITOR button is reproduced. Therefore, for stereo playback, connect a stereo system to the VARIABLE AUDIO OUT or AUDIO OUT connectors. Refer to page 14.

VARIABLE AUDIO OUT and AUDIO OUT connectors
Deliver the audio signals from both hi-fi and normal audio tracks.

PHONES jack
Delivers the audio signals from both hi-fi and normal audio tracks. The headphone output level is adjustable with the PHONES LEVEL control.

Audio select indicators (Hi-Fi/NORMAL)

Audio level/Hi-Fi tracking meter



PHONES LEVEL control

LEVEL INDICATOR switch and TRACKING controls
The audio level indicators on the FDP show the audio signal level during recording and playback when the LEVEL INDICATOR switch is set to ON.
The right-channel audio level indicator also functions as a tracking meter during playback. If noise or breaks are sensed in the reproduced sound from the hi-fi audio track, attempt correction by using the TRACKING controls while referring to the meter. For this purpose, set the LEVEL INDICATOR switch to Hi-Fi TRACK and press either TRACKING control button so that the greatest number of elements of the right-channel indicator light.
When this switch is set to OFF, the indicators do not light; regardless of whether during recording or playback.

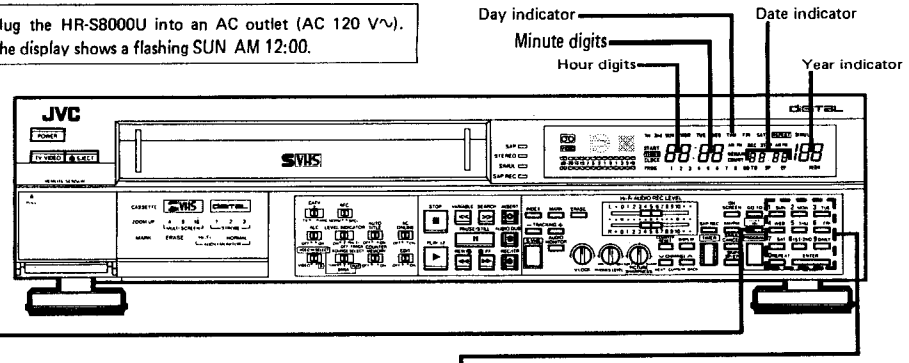
Note:
- When playing back a tape with no recording on the hi-fi audio track, the level indicator does not light when the LEVEL INDICATOR switch is set to Hi-Fi TRACK.

AUDIO MONITOR button
Selects the hi-fi stereo soundtrack, the normal soundtrack, or a mixture of the two for listening. Each time the button is pressed, the selected soundtrack changes in the order of hi-fi stereo, normal, mixed, and then back to hi-fi stereo and the corresponding audio select indicator will light. For mixed playback, both the Hi-Fi and NORMAL indicators will light.
- Set to Hi-Fi to listen to a stereo soundtrack.
- Set to NORMAL to listen to the normal sound.
- Set to Hi-Fi/NORMAL to listen to both.

Notes:
- This button functions during recording as well, although it has no effect on the recorded signal.
- When a tape with normal audio only is played back, the NORMAL mode is automatically selected.

CLOCK SETTING

Plug the HR-S8000U into an AC outlet (AC 120 V~).
The display shows a flashing SUN AM 12:00.



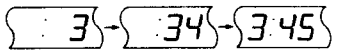
1 Press CLOCK ADJ.
The "CLOCK" indication and the indicated day will flash.

2 Press a numeric key corresponding to the day of the week.
●If the indicated day is OK, proceed to the next step.

3 Press ENTER. The time display section will flash.

4 Press AM/PM to obtain correct indication.
●If the indicated sign is OK, proceed to the next step.

5 Key in the number corresponding to the time to be set.
●Example: To set 3:45, press keys [3] [4] [5] in this order.



6 Press ENTER.
●The month display section of the date indicator will flash.

7 Key in the number corresponding to the month to be set.
Example: To set for December, press keys [1], [2] in succession.

8 Press ENTER.
●The day display section will flash.

9 Key in the number corresponding to the day.

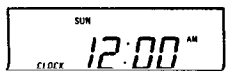
10 Press ENTER.
●The year display section will flash.

11 Key in the number corresponding to the year.
●For 1988, key in only "88".

12 Press CLOCK ADJ at the exact instant of the time signal, and the clock will be set accurately to the present time.

Notes:
- ●Clock setting must begin within 10 seconds of pressing the CLOCK ADJ button, otherwise it will be necessary to press the CLOCK ADJ button again.
- ●Clock setting is not possible if the TIMER button is engaged with the TIMER indicator lit. First check to see that the TIMER indicator is not lit.
- ●Steps 4 and 5 can be reversed.
- ●The NEXT and BACK keys can be used to switch from the day to time setting mode, or vice versa.
- ●Auto-titling (see page 25) will not function unless the time, date and year have been correctly set.
- ●Advance the minute digits slightly ahead of the exact time. Press the CLOCK ADJ button precisely when a time signal from broadcast or telephone is heard to insure accurate time setting.

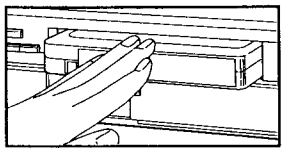
Power failure indicator
The clock display may reset to SUN AM 12:00 and start to flicker. This is not a malfunctioning of the clock, but it indicates that there has been a power failure in excess of 60 minutes. Readjusting the time restores the normal condition of the clock display.



- If the period of power outage is within about 60 minutes, correct time-keeping continues when power is reapplied.
- During this 60-minute period, the built-in memory back-up capacitor maintains time-keeping and preset timer memory, though the display blacks out.
- The memory backup capacitor is being recharged when the recorder is not in use. For the fully-discharged capacitor to be recharged sufficiently for 60-minute backup, it takes more than 30 minutes.

LOADING AND UNLOADING A CASSETTE

Loading
Insert a cassette as illustrated with its labelled side facing you.
- With a cassette inserted, the [OO] mark to indicate "cassette inserted" appears on the display panel. If you insert an S-VHS cassette, the S-VHS CASSETTE indicator will also light.



Unloading
Press the EJECT button. The cassette will be ejected.

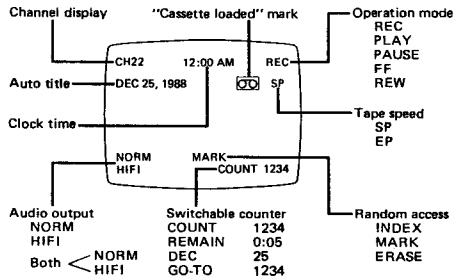
Motorized loading system
- The cassette can be loaded even when the power has not been turned on. Inserting a cassette into the loading slot turns the power on automatically.
- The cassette can be unloaded even when the power has been turned off. If a cassette is inside, pressing the EJECT button turns the power on automatically and, after ejection of the cassette, shuts it off automatically.
- Inserting a cassette, with its safety tab removed, turns the recorder on and playback of the cassette begins automatically.

Notes:
- Be sure to insert the cassette firmly into the slot; otherwise, it will be automatically ejected.
- The automatic loading mechanism will operate only when the cassette is inserted correctly.

Caution
- If unloading of a cassette is not possible, check to see whether the TIMER indicator is lit. If so, press the TIMER button so the TIMER indicator extinguishes.
- Do not attempt to pull out the cassette once automatic loading has started.

Warning
- Do not insert fingers or any foreign object beyond the door flaps of the cassette loading slot, as this could lead to injury or damage to the mechanism. Show special caution with children.

ON-SCREEN CHANNEL, TIME AND MODE DISPLAY



Automatic indication
- Channel
  Each time a different channel is selected, the number of that tuned-in channel is displayed on the TV screen for 5 seconds.
- Operation mode
  Each time the operation mode is changed, that engaged mode is displayed.
  - REC: Displayed for 5 seconds together with channel, "cassette loaded" mark, and the tape speed (SP or EP).
  - PLAY: Displayed only when the mode is changed from Stop to Play. (No indication appears when special effects are applied in the Play mode.)
  - PAUSE: Remains displayed as long as the Record-Pause mode continues.
  - FF/REW: Displayed for 5 seconds.
- "Cassette loaded" mark
  In addition to being displayed together with "REC", the mark is displayed for 5 seconds when a cassette is inserted, and blinks until the cassette is ejected when the EJECT button is pressed.
- Audio output
  When the audio output is changed by pressing the AUDIO MONITOR button, the engaged audio output mode is displayed for 5 seconds except during playback.
- Switchable counter
  - COUNT/REMAIN/DATE: When the counter mode is changed, the same information as on the FDP is displayed for 5 seconds.
  - GO-TO: When the Go-To mode is engaged, the same information as on the FDP appears and, upon completion of Go-To search, disappears after showing the last figure for 5 seconds.
- Random access
  - INDEX: Displayed when the Index Search mode is engaged. When the search number is specified by the numeric keys, this is also displayed until search spooling is initiated.
  - MARK: Displayed when an index code is recorded (whether automatically or manually).
  - ERASE: Displayed when the ERASE button is pressed.
- Auto title
  When the AUTO TITLE switch is set to ON, this date indication together with the time and channel are all displayed and recorded for 5 seconds each time a new recording is started.

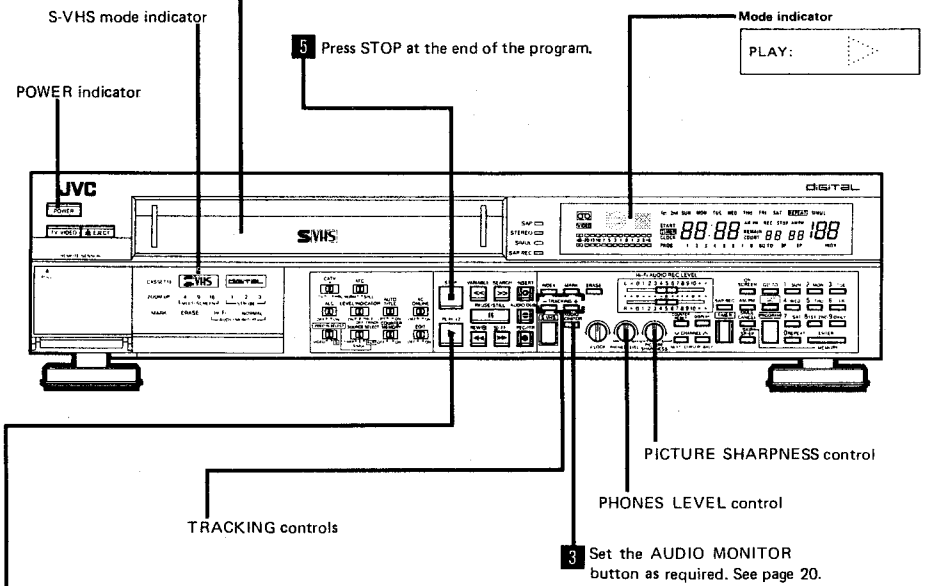
Manual recall/cancel
- For anytime checking of the recorder status, or time and date, press the ENTER button (on the recorder or remote control) or the ON SCREEN button (on the remote control). The corresponding indication will be available on the screen for 5 seconds.

Note:
- For on-screen timer programming, see page 37.

PLAYING BACK A VIDEO CASSETTE

1 Switch ON.
Adjust the TV receiver's channel to the video channel (3 or 4).

2 Load a pre-recorded cassette. Power will be switched on automatically. When the cassette loaded has no safety tab, playback starts automatically.



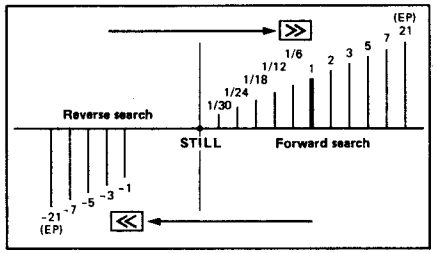
Skip Search function
During playback, press the remote control's SKIP SEARCH button from 1 to 4 times to zip through 30-sec. to 2-min. sections of tape. Press the PLAY/X2 button to cancel the Skip Search mode.

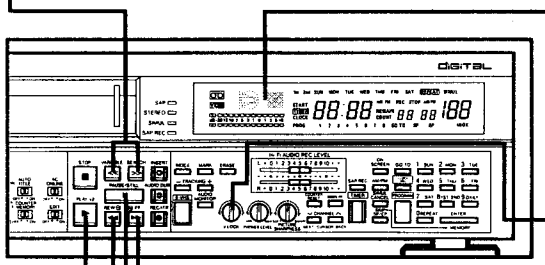
Notes:
- The SP/EP button may be in either position.
  The SP, LP or EP mode recording is automatically detected and played back at the correct speed.
- Irrespective of the S-VHS mode button setting, the S-VHS or VHS recording mode is automatically detected and played back in the correct mode. The S-VHS mode indicator lights for playback of S-VHS recordings.
- When the PLAY/X2 button is pressed to start playback, the VIDEO mode is automatically entered and the VIDEO indicator on the FDP lights.
- The tape-end auto rewind mechanism functions in the Play, Fast Forward and Variable Search modes.
- Noise bars may appear on the screen if you play back a tape which was recorded using another recorder. In such cases, adjust the TRACKING controls. Press one of the buttons until a satisfactory picture is obtained. After playback, tracking may be reset manually by pressing both buttons simultaneously. It is reset automatically when the tape is ejected or the power turned off.
- Images on the screen can be adjusted to a preferred softer or sharper definition by turning the PICTURE SHARPNESS control.
- When listening through headphones, if the volume is too low or too high, adjust the PHONES LEVEL control for comfortable listening.

SPECIAL-EFFECTS PLAYBACK

When one of the following modes is engaged, the digital circuitry is automatically activated to help compensate for picture quality deterioration. Therefore, stills, slow-motion and fast-motion pictures are all cleaner than before. The "DIGITAL" indicator will remain lit while in these modes.

VARIABLE SEARCH buttons
- To search in the forward direction, press the ≫ button in the Play mode; slow-motion playback at 1/30 the normal speed is engaged.
  To increase the speed (to 1/24, 1/18, 1/12, 1/6, normal, 2X, 3X, 5X and 7X), press the ≫ button; to decrease the speed, press the ≪ button. Pressing the ≪ button from 1/30, the direction changes to reverse search.
- To search in the reverse direction, press the ≪ button in the Play mode. Reverse playback at normal speed is engaged.
  To increase the speed, press the ≪ button; to decrease the speed, press the ≫ button. Pressing this ≫ button from normal speed changes the direction to forward search.





Mode indicator

FF:	≫	STILL:	
REW:	≪	SLOW:	▷
FF SHUTTLE SEARCH:	▷≫	REW SHUTTLE SEARCH:	▷≪

V. LOCK control

High-speed reverse search
REW button
- To rewind the tape, press this button in the Stop mode.
- To shuttle search the tape in the reverse direction, press this button in the Play mode.
- The shuttling speed is about 7 times normal in the SP mode and 21 times normal in the EP mode.
- Press the PLAY/X2 button to return to normal playback.

High-speed forward search
FF button
- To fast forward the tape, press this button in the Stop mode.
- To shuttle search the tape in the forward direction, press this button in the Play mode.
- The shuttling speed is about 7 times normal in the SP mode and 21 times normal in the EP mode.
- Press the PLAY/X2 button to return to normal playback.

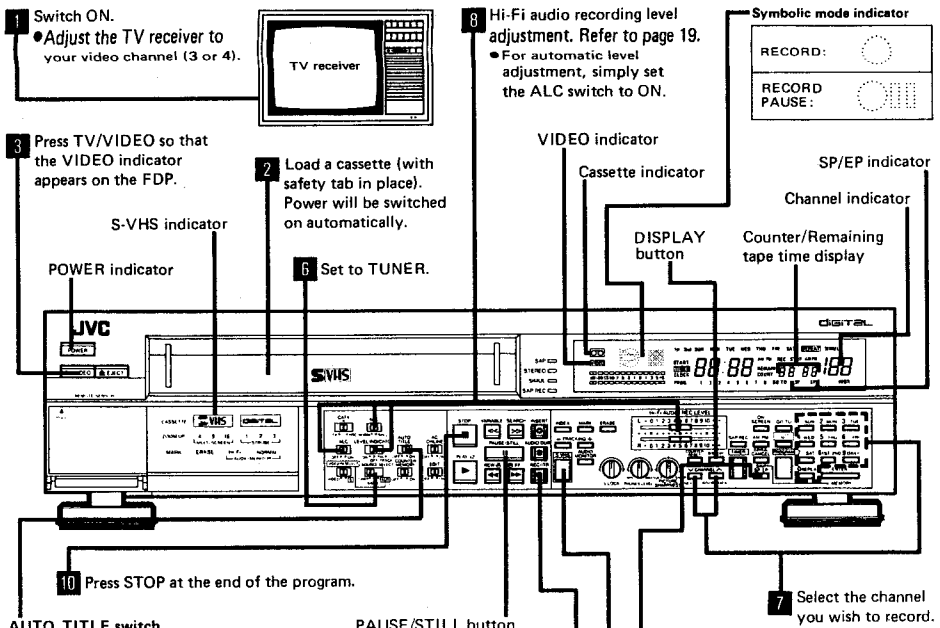
Double-speed playback
PLAY/X2 button
- Press while in the Play mode; double-speed playback will be engaged.
- To resume normal playback, press the same button again.

Still playback
PAUSE/STILL button
- Press while in the Play mode; the tape will stop and a still picture will be obtained.
- To advance the still picture, press again.
- To return to the normal Play mode, press the PLAY/X2 button.

Notes:
- For briefer scanning, keep the REW or FF button pressed for more than 2 seconds; when you release the button, the Search mode will be cancelled. In this case, the shuttling speed in the EP mode is about 7 times normal.
- When the Still mode continues for longer than about 5 minutes, the Stop mode will be entered automatically.
- With some televisions, the still picture may be unstable. If vertical vibration of the picture is observed, attempt to correct it by turning the V.LOCK control.
- If noise bars are visible, use the TRACKING controls as described on the previous page.
- With some video cassettes, the TV picture may distort during slow-motion playback. This is not due to any defect of the unit.
- Special-effects playback is not possible in the LP mode.
  When the Special-effects mode is engaged during playback of LP recorded tapes, the picture disappears from the screen. If you happen to engage one of the Special-effects modes while playing an LP tape, simply press the PLAY/X2 button to restore the picture.

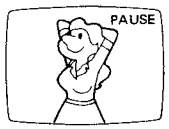
BASIC OPERATION FOR RECORDING TV PROGRAMS

Basic concept: receive the desired TV program with the built-in tuner and operate the tape section for recording.


1 Switch ON.
•Adjust the TV receiver to your video channel (3 or 4).
TV receiver
8 Hi-Fi audio recording level adjustment. Refer to page 19.
•For automatic level adjustment, simply set the ALC switch to ON.
Symbolic mode indicator
RECORD:
RECORD PAUSE:
3 Press TV/VIDEO so that the VIDEO indicator appears on the FDP.
2 Load a cassette (with safety tab in place). Power will be switched on automatically.
VIDEO indicator
Cassette indicator
SP/EP indicator
Channel indicator
S-VHS indicator
DISPLAY button
Counter/Remaining tape time display
POWER indicator
6 Set to TUNER.
JVC
S-VHS
10 Press STOP at the end of the program.
7 Select the channel you wish to record.

AUTO TITLE switch
If you wish the recording data to be recorded at the beginning of a program, set the AUTO TITLE switch to ON. Each time recording is initiated from the Stop or Timer Standby mode, the channel, time and date will be recorded for about 5 seconds.

PAUSE/STILL button



On-screen Pause Mode indicator

The recording data can also be recorded by pressing the MARK button during recording (with the AUTO TITLE switch set to ON). If you wish this recording to be performed when starting a recording from the Record-Pause mode, press the MARK button in the Record-Pause mode and then start recording by pressing the PLAY button.

5 Select the recording speed (SP or EP).
SP: 2 hours 40 minutes with a T-160 cassette.
EP: 8 hours with a T-160 cassette.
(Check the SP/EP indicator on the FDP.)

4 For S-VHS recording, press S-VHS so that the S-VHS indicator will light.

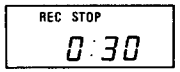
9 Press REC/ITR once to start recording. (When using the remote control unit, press the REC and PLAY/X2 buttons simultaneously.)

Notes:
- If the REC/ITR button is pressed more than once, the Instant Timer Recording mode will be entered (see page 26). To return to ordinary recording, repeatedly press the REC/ITR button until the REC STOP indicator in the FDP is extinguished.
- If there is part of the program you do not want to record, press the PAUSE/STILL button. To release the Pause mode, press the PLAY/X2 button.
- When recording is restarted from the Pause mode, assemble recording is performed so that the playback picture will not distort at the edit point. A few frames recorded before the pause are erased due to overlap of the new recording. This is not due to any defect of the unit.
- If the REC button cannot be engaged, check to see if the cassette safety tab has been removed. (See page 6.)
- When the Pause mode continues for longer than about 5 minutes, the Stop mode will be entered automatically.
- When a recording containing assemble edits (segments recorded using the PAUSE function) is played back, color noise may appear momentarily at edit points. This is not due to any defect of the unit.
- When the end of the tape is reached during recording, the tape is automatically rewound to the beginning and stops.
- Press the DISPLAY button to check how much recording time is left.
- The built-in tuner's automatic channel lock mechanism prevents the selected channel from being altered during recording. Therefore, if you wish to change the channel during recording, first engage the Pause mode and then select a different channel.

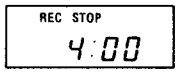
INSTANT TIMER RECORDING

After you start recording, the recorder can be set to stop automatically after a certain period of time. Use this facility for starting a recording before you go to bed or leave home.

1 Press REC/ITR while recording (or twice if in the Stop mode).
•The following indication will appear on the display, to show that the recorder is recording in the Instant Timer Recording mode and power will switch off after 30 minutes.



2 Each time the REC/ITR button is pressed, recording time increases by 30 minutes to a maximum of 4 hours. If the REC/ITR button is pressed again, the Normal Recording mode will be entered.



- For a more precise time setting, use the numeric keys to set to the exact time required.
1. After "0:30" has appeared, specify the time using the numeric keys.
   •Always key in a full number including hours and minutes.
2. Press the REC/ITR button immediately (within 4 seconds).

Notes:
- Time setting in the Instant Timer Recording mode is possible up to a maximum of 8 hours 59 minutes if the numeric keys are used.
- While recording is in progress, the displayed time counts down; when 0:00 is reached, the Record mode is released after 10 seconds and the power is switched off.
- If you want to stop recording after having started recording in the Instant Timer Recording mode, press the STOP button.
- If instant timer recording is engaged while the unit is in the Pause mode, the timer will count down normally, but recording will not begin until the PLAY/X2 button is pressed.
- When the Instant Timer Record-Pause mode continues for longer than about 5 minutes, the mode is released and the power is switched off.
- If you want to check the Remaining tape time or Counter reading while performing instant timer recording, press the DISPLAY button to obtain the desired indication (the REC STOP indication disappears). To return to the REC STOP indication, press the REC/ITR button once, or wait for about 5 seconds and the remaining time indication will reappear automatically.

RECORDING ONE TV PROGRAM WHILE WATCHING ANOTHER

A program not being viewed can be recorded while you enjoy another program. This permits the recorded program to be played back later at your convenience.
The recording procedure is exactly the same as described on the previous page. The points to be remembered are:
- Select the channel you wish to record with the recorder's channel select buttons.
- Select the channel you wish to view with the TV receiver's channel selector.
- Make sure that the VIDEO indicator is not lit on the FDP. If lit, press the TV/VIDEO button so that it extinguishes.

RECORDING STEREO TV PROGRAMS

When stereo TV programs are broadcast, the HR-S8000U is capable of automatically receiving them in stereo. When a stereo program is being received, the STEREO indicator lights and recording is made in stereo on the hi-fi audio track and in monaural on the normal audio track. To listen to the stereo soundtrack during recording, set the AUDIO MONITOR select button to Hi-Fi (the Hi-Fi indicator lights).

RECORDING SAP (Second Audio Program) TV PROGRAMS

When an SAP TV program is being received, the SAP indicator lights. To record such a program, pay attention to two additional controls and the basic operation described on the previous page.
- Press the SAP REC button so that the SAP REC indicator lights, to record the second audio program. To record the main audio program only, release this button (the SAP REC indicator is off).
- Set the AUDIO MONITOR select button to NORMAL (the NORMAL indicator lights) to listen to the SAP soundtrack being recorded.

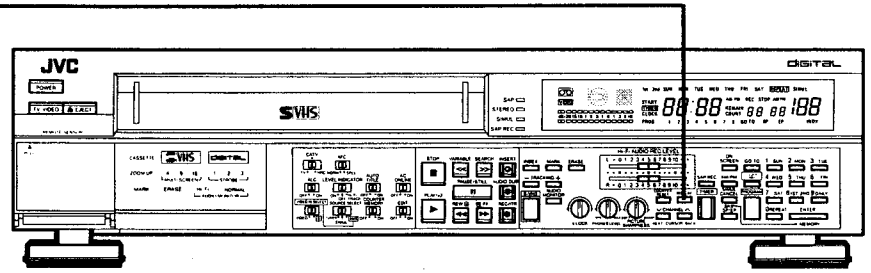
Note:
- SAP programs can be recorded only on the normal audio track. It is not possible to record any SAP program on the hi-fi audio track, regardless of the setting of any switch.

REMAINING TAPE TIME INDICATOR

The tape counter is switchable to the remaining tape time indicator.

1 Press the DISPLAY button to obtain the Remaining Tape Time mode.

2 The remaining tape length will be shown in hours and minutes.



Notes:

- During recording, the remaining tape length is calculated in reference to the recording mode selected by the SP/EP button; during playback, it is calculated in reference to the recording mode of the tape being played (SP/EP).
- The indicated remaining time is approximate. The time required to calculate the remaining tape length and the accuracy of that calculation may vary according to the type of cassette tape. (The remaining time indication is not available if this mode is engaged from Fast Forward or Rewind.)

NEXT-FUNCTION MEMORY

Memory Play function

- If you want to watch the tape from its beginning after rewinding, press the REW button and than PLAY/X2 within 2 seconds. Playback will start automatically at the beginning of the tape. (The COUNTER MEMORY switch must be in the OFF position.)
- If you want to watch the tape from the counter reading of "0000", shift the COUNTER MEMORY switch to the ON position. Then press the REW (or FF) button and then PLAY/X2 within 2 seconds.
- While the tape is being rewound, the PLAY indicator is blinking. To cancel the Memory Play mode and go to another mode, press the corresponding button (STOP, PLAY/X2, FF, REW).

Memory Eject/Power-Off/Timer Standby

If you are going to eject the cassette, turn the power off or engage the Timer Standby mode after rewinding the tape, you do not have to wait for completion of rewind to press the corresponding button.

- To eject the cassette after rewind, press REW and then EJECT within 2 seconds. (To cancel the Memory Eject mode, press STOP.)
- To turn the power off after rewind press REW and then POWER within 2 seconds. (To cancel the Memory Power-off mode, press POWER.)
- To engage the Timer Standby mode after rewind, press REW and then TIMER within 2 seconds. (To cancel the Memory Timer Standby mode, press TIMER.)

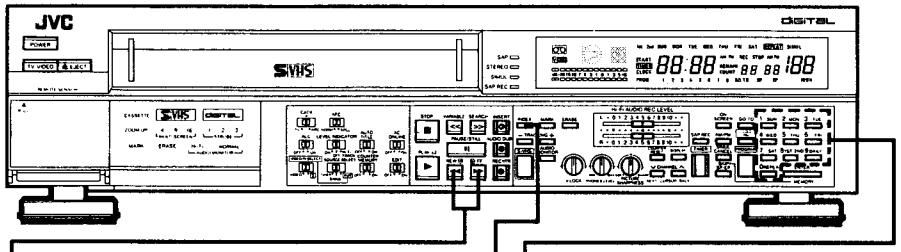
Memory Play	REW/FF →	PLAY/X2	PLAY	Blinking →	Play mode
Memory Eject	REW →	EJECT		Blinking →	Cassette ejected
Memory Power-off	REW →	POWER	POWER	Blinking →	Power off
Memory Timer Standby	REW →	TIMER	TIMER	Lights →	Timer standby mode

within 2 seconds

INDEX SEARCH FUNCTION

The Index Search function gives you automatic access to the beginning of individual recordings, and to index codes placed by you within those recordings. With the HR-S8000U, you can access any one of up to 9 of these indexed segments in either the forward or reverse direction.

Using the Index Search function



3 Press either FF or REW within 2 seconds.
- The tape will move and the index numbers count down to 0, where normal playback will start.
- If the INDEX button was pressed in the Play mode, the screen shows search pictures; if the button was pressed in the Stop mode, the index codes are detected in the Rewind or Fast-Forward mode.

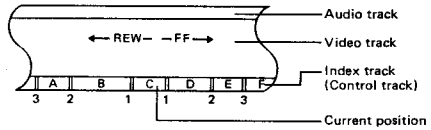
2 Specify the index number using one of the numeric keys.
- The specified number will appear in the FDP.

1 Press the INDEX button (on the recorder or remote control) while in the Play or Stop mode.
- The channel display of the FDP will change to the Index Search mode.

Notes:

- To cancel the Index Search mode before completion, press the PLAY/X2 or STOP button.
- If the end of the tape is reached while still in the Index Search mode, the mode is cancelled and the tape rewound.

Tips for specifying the index number

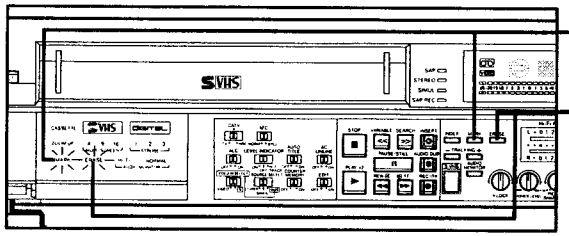


- "1" + FF moves playback to the beginning of segment D.
- "1" + REW moves playback to the beginning of segment C.
- "2" + REW moves playback to the beginning of segment B.
- If no number is entered, a value of "1" is assumed.

Changing the index codes

Index codes are automatically placed at the beginning of recordings which are started from the Stop or Timer mode.

You can use the MARK button to add extra codes, and the ERASE button to erase codes. In neither case is there any effect on the audio or video recordings on the tape.



MARK

In the Play or Record mode, press this button once to put an index code onto the tape.
The LED blinks during the marking process.

ERASE

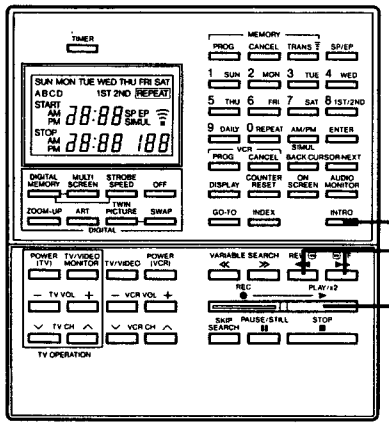
In the Play or Still mode, press this button to erase the next index code. First the Shuttle Search mode will be engaged and, when an index code is detected, it will be erased automatically. Then the Erase mode is cancelled and playback resumes.
The LED remains lit during the searching process and blinks during the erasing process.

Notes:

- If the AUTO TITLE switch is set to ON, both the index code and the recording data will be recorded by pressing the MARK button.
- The index codes on a tape with its safety tab removed cannot be changed.
- While the index code is being searched for in the Erase mode, random noise appears on the screen.
- Changing the index codes in the vicinity of switching points between SP and EP recordings will distort the pictures.

INTRO SEARCH FUNCTION

The Intro Search function lets you visually check the contents of each recording by playing back in fast motion a short segment of a program each time an index code is detected.

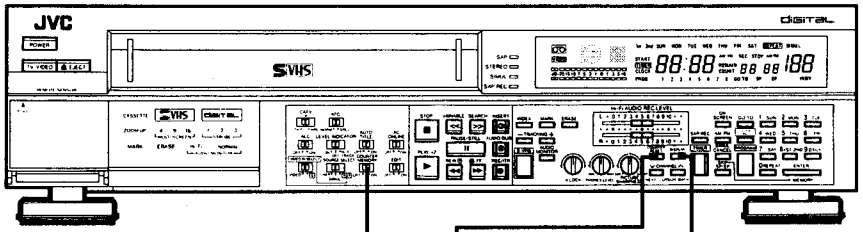


1 Press the INTRO button while in the Play or Stop mode.
- The INDEX indicator on the FDP will light.

2 Press the FF or REW button within 2 seconds.
- The Intro Search will start in the corresponding direction.
- Each time an index code is detected, the corresponding part is played back at the search speed (7 times normal in SP and 21 times normal in EP mode) for about 5 seconds.

3 When you find the section you want to view, simply press the PLAY/X2 button.
- Normal playback will start.

COUNTER MEMORY FUNCTION



Counter Memory function
1. Press the DISPLAY button to obtain the Counter mode.
2. Press the COUNTER RESET button at a point which you may wish to locate later.
   - The tape counter will indicate "0000".
3. Set the COUNTER MEMORY switch to ON.
4. Press the REW (or FF) button when you need to return to the designated point.
   The tape will rewind (or fast forward) and stop at about the "0000" counter reading automatically.

DISPLAY button
When the POWER button is pressed, or a cassette is inserted, the tape counter appears on the display with the COUNT indicator illuminated. To check the length of tape left, press the DISPLAY button to engage the Remaining Time mode. (See page 27.)

COUNTER RESET button
Press to reset the tape counter to "0000".

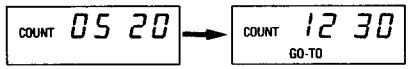
Note:
Unless the COUNTER RESET button is pressed, or a cassette leader tape detected (see page 30), the count is maintained even after the POWER button is pressed to off (as long as the unit is plugged into an AC outlet).

COUNTER GO-TO FUNCTION

The counter Go-To function gives you direct access to any point on the tape by simply specifiying a desired counter reading. Depending on your command, the tape will either stop at the point or playback will start automatically from there.

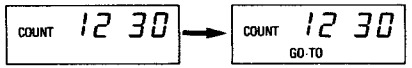
2 Press the GO-TO button.
- The counter will change to the Go-To mode.
  There are three possible cases:

(1) Counter reading changes from one number to another.



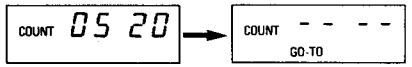
Relative count — Absolute count

(2) Counter reading remains unchanged.



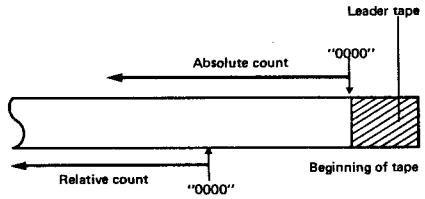
Absolute count — Absolute count

(3) "----" appears instead of a number.



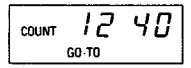
- The recorder did not detect the leader tape when the cassette was loaded and, therefore, cannot determine the tape's present position in relation to its beginning.

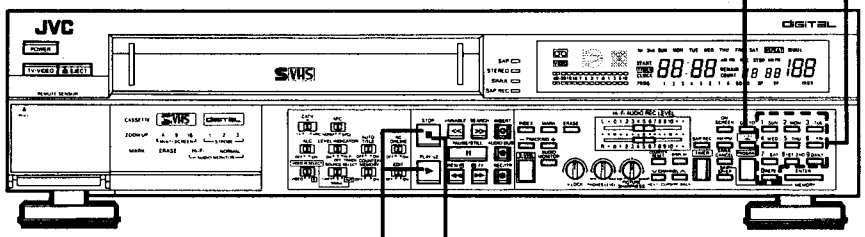
Absolute count vs. Relative count



- The absolute "0000" count is automatically set when the leader tape is detected at the time of cassette loading.
- The relative "0000" count is set when the COUNTER RESET button is pressed, and does not apply to the counter Go-To procedure.

3 Specify the point you want to locate by using the 10 numeric keys.





1 Engage the Stop mode.

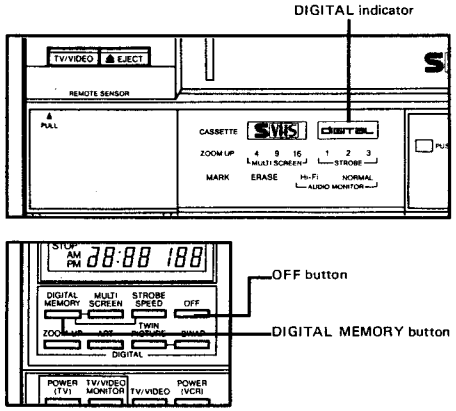
4 Press the PLAY/X2 or STOP button.
- In cases (1) and (2), the tape will either fast forward or rewind to the specified point.
- In the case of (3), the tape is first rewound to the beginning of the tape (where the counter is automatically reset to "0000") and then is fast forwarded to the specified point.
- Once the beginning of the tape is detected in this way, the tape counter always reads the position in relation to the beginning until the COUNTER RESET button is pressed at a different position.

- If the specified number exceeds the tape length, the tape is first fast forwarded to its end, then rewound to its beginning and stops.
- Use of the Go-To function cancels the previous relative count.
- Press the PLAY/X2 or STOP button to cancel the Go-To function and enter the Play or Stop mode.

DIGITAL FUNCTIONS

The HR-S8000U incorporates digital memory circuits to provide a variety of special effects during recording, and while watching a recorded tape or a regular television broadcast.

DIGITAL FREEZE FUNCTION



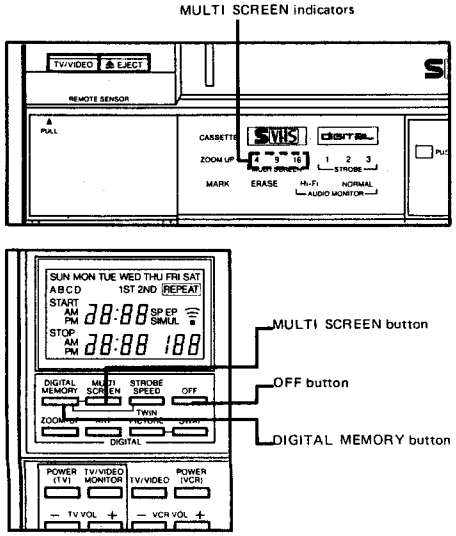
Digital Freeze:
A still picture stored in memory is continuously reproduced on the TV screen while the tape runs or a regular broadcast continues. The soundtrack is not affected. If this mode is engaged during recording, the frozen picture will be continuously recorded.

1. While in the Play or Record mode (or while viewing a television program), press the DIGITAL MEMORY button.
   - The picture is "frozen" on the screen at the instant of pressing.
   - The soundtrack continues unaffected.
   - The "DIGITAL" indicator will light.
2. To switch to another still picture, press the DIGITAL MEMORY button again.
3. To restore normal pictures, press the OFF button.

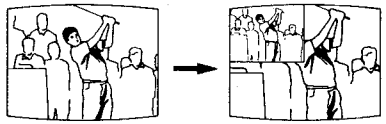
Note:
To use the HR-S8000U as a special-effects generator while watching television, engage the HR-S8000U in the VIDEO mode, set the TV receiver to your video channel and select the channel you wish to view with the HR-S8000U's channel selector.

MULTI-SCREEN DIGITAL FREEZE FUNCTION

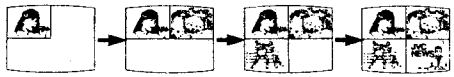
Multi-Screen Digital Freeze:
Selected still pictures are displayed on split screens.



1. While in the Play or Record mode (or while viewing a television program), press the MULTI SCREEN button to select the desired Multi Screen mode.
   - The first pressing engages the 4-screen mode, then each subsequent pressing changes the number of sub-screens to 9 and 16. Pressing once again cancels the Multi-Screen mode.
   - The corresponding MULTI SCREEN indicator will light.
2. Press the DIGITAL MEMORY button.
   - The picture will be frozen and the ongoing program will continue in a sub-screen appearing in the upper left corner.
   - The "DIGITAL" indicator will light.



3. Each time the DIGITAL MEMORY button is pressed, still pictures will fill the subsequent sub-screens.
   - When the last sub-screen is frozen by pressing the DIGITAL MEMORY button, the program will continue in the first sub-screen and another cycle of selecting still pictures for each of the sub-screens can be performed.

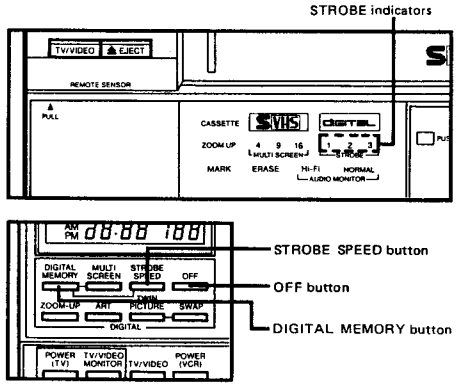


4. To restore normal pictures, press the OFF button.

Note:
- The images on the screen will become distorted if you change the channel while remaining in the Multi-Screen Digital Freeze mode.

DIGITAL STROBE FUNCTION

Digital Strobe:
A still picture selected at regular intervals from the tape or broadcast and stored in memory is continuously reproduced on the screen while the tape or broadcast continues with its soundtrack unaffected. The regular changing of the stored picture results in a strobe-light or time-lapse effect. Strobing at three different speeds can be selected. When applied during recording, the strobing pictures will be recorded.



1. While in the Play or Record mode (or while watching a television program), press the STROBE SPEED button to select the desired speed.
   - Each time the STROBE SPEED button is pressed, the speed becomes faster in the order of 1, 2, 3, then Freeze and then returns to 1.

Strobe Speed

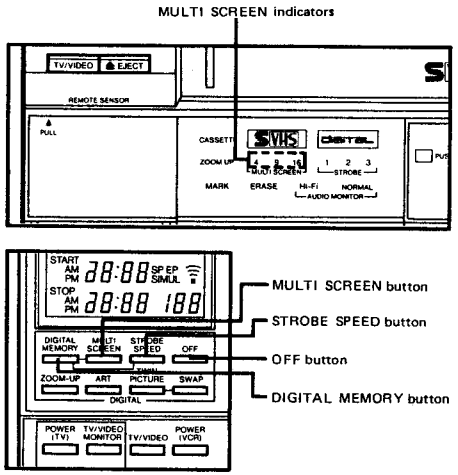
Indication	Strobing interval
STROBE 1	Approx. 0.6 sec
2	Approx. 0.3 sec
3	Approx. 0.1 sec

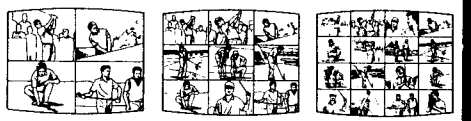
   - The selected speed will be indicated by one of the STROBE indicators.
   - After speed 3, a still picture is maintained as in the Digital Freeze mode.
2. Press the DIGITAL MEMORY button while in the Play mode (or while watching a television program).
   - Strobing will start at the selected speed.
   - The "DIGITAL" indicator will light.
   - To change the strobe speed, press the STROBE SPEED button the required number of times.
3. To restore normal pictures, press the OFF button.

Note:
- It is also possible to perform strobing by first engaging the Digital Freeze mode and then selecting the speed.

MULTI-SCREEN DIGITAL STROBE FUNCTION

Multi-Screen Digital Strobe:
Still pictures are displayed on sub-screens successively at the selected strobe speed.

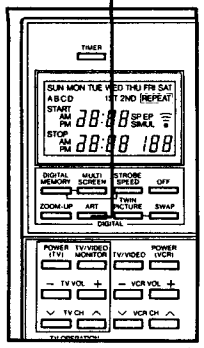




1. While in the Play or Record mode (or while watching a television program), press the MULTI SCREEN button to select the desired Multi Screen mode.
   - The corresponding MULTI SCREEN indicator (4, 9 or 16) will light.
2. Press the STROBE SPEED button.
3. Press the DIGITAL MEMORY button to start strobing.
   - The still picture coinciding with the pressing of the button will be displayed on sub-screens and those sub-screens will be filled with different still pictures automatically at a constant speed.
   - The "DIGITAL" indicator will light.
   - After all sub-screens have been filled with still pictures, the screen remains unchanged.
4. To restart strobing, press the DIGITAL MEMORY button; the first pressing changes the picture on the first (upper left-corner) sub-screen into a normal moving picture, and the second pressing starts strobing.
5. To restore normal pictures, press the OFF button.

Notes:
- Once the DIGITAL MEMORY button has been pressed, it is not possible to alter the number of screens.
- The images on the screen will become distorted if you change the channel in the middle of strobing. To change the channel, first cancel the digital mode by pressing the OFF button.

DIGITAL ART EFFECTS

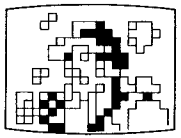


Mosaic effects:

Reproduces the image with square patterns. Two different patterns are available.

Mosaic 1
A pattern of smaller squares

Mosaic 2
A pattern of larger squares



Solarization effects:

Solarizes the color of the image as with a paint-brush.

Solarization 1
Stronger solarization

Solarization 2
Weaker solarization

1 Press the ART button while in the Play or Record mode (or while watching a television program).
- Each time the ART button is pressed, the mode changes in the order of Mosaic 1, 2, Solarization 1, 2 and then returns to Mosaic 1.
- The "DIGITAL" indicator will light.

2 Press the OFF button to restore normal pictures.

Note:
- The Digital Art function can also be used in combination with the following functions:
  - Digital Freeze
  - Digital Strobe

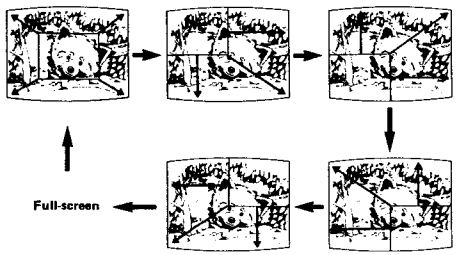
DIGITAL FUNCTIONS

DIGITAL ZOOM FUNCTION

Digital Zoom:

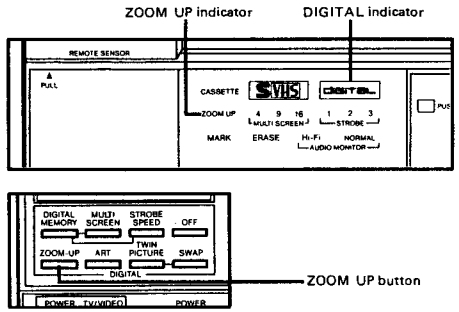
Enlarges the desired quarter of the picture on the screen to a full-screen picture. The displayed pictures are moving pictures.

1 Press the ZOOM UP button while in the Play or Record mode (or while viewing a television program).
- The center quarter of the picture will be enlarged to full-screen size.
- Each time the ZOOM UP button is pressed, the position of the quarter to be enlarged changes in the order as shown below:



- While in the Digital Zoom mode, the ZOOM UP and DIGITAL indicators remain lit.

2 To restore normal pictures, press the OFF button.



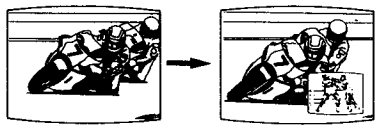
Notes:
- In the Digital Zoom mode, the picture may become slightly more grainy or it may look split into upper and lower halves.
- With some televisions, the zoomed-up picture may not completely fill the entire screen. This is not due to any defect of the unit.

PICTURE-IN-PICTURE AND SWAP FUNCTIONS

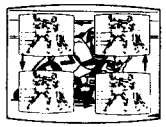
Picture-In-Picture:

During tape playback, a TV broadcast received by the VCR's built-in tuner is displayed in an inset window.

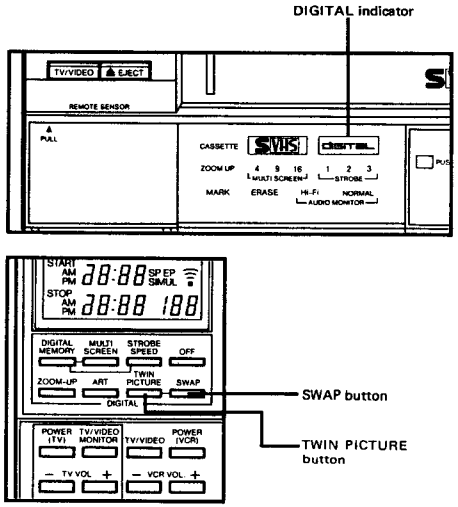
1 While in the Play mode, press the TWIN PICTURE button.
- A sub-screen corresponding to the size of the 9-screen mode will appear in the lower right-hand corner and show a program from the selected channel of the VCR's tuner.



- The "DIGITAL" indicator will light.
- Each pressing of the TWIN PICTURE button shifts the position of the window as follows:



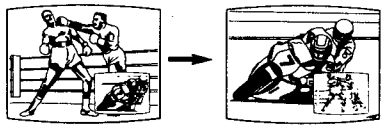
- To view another program in the window, select a different channel on the VCR.
- If an external source is selected, this can be displayed as well.



Swap function:

The swap function allows the switching of pictures between the main screen and window.

1 To switch pictures between the main screen and window, press the SWAP button.



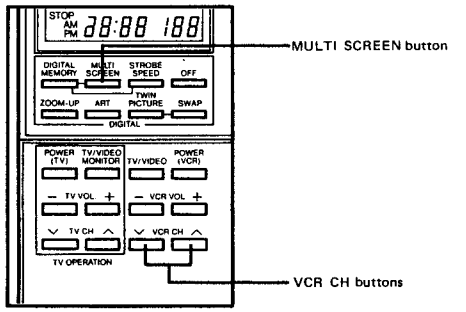
2 To restore normal playback pictures, press the OFF button.

Notes:
- With some televisions, the position of the window could be such that its edge exceeds the frame of the main screen.
- If the reception quality of the TV program on the main screen is inferior, the picture in the window may not be normal.
- If the program on the main screen is monochrome, the picture in the window will also be monochrome.

DIGITAL FUNCTIONS

MULTI-SCREEN CHANNEL SCAN FUNCTION

Multi-Screen Channel Scan:
Broadcast programs are displayed as still pictures on sub-screens as channel scanning proceeds. This multi-screen picture cannot be recorded.



1 Press the MULTI SCREEN button to select the desired Multi-Screen mode.
2 With the TV program displayed on the screen, press the VCR CH "∨" or "∧" button to scan channels; "∨" to scan channels lower than the currently tuned-in and "∧" to scan channels higher than the currently tuned-in.
- The "DIGITAL" indicator will light.
- The sub-screens will be filled sequentially with still pictures of tuned-in channels.
- After all sub-screens have been filled with still pictures, the screen remains unchanged.
- To continue scanning, press the VCR CH "∨" or "∧" button.

3 To cancel the Multi-Screen Channel Scan mode, press the OFF button.

MULTI-SCREEN INTRO SEARCH FUNCTION

Multi-Screen Intro Search:
Using the Multi Screen mode and the Index Search function, displays the still pictures located at detected index codes and, after completion of the search, records the multi-screen image at the beginning of the tape.

1 Press the MULTI SCREEN button to select the desired Multi Screen mode (4, 9 or 16).
- Always start Intro Search from the beginning of the tape.

2 Press the INTRO button.
- The "DIGITAL" indicator will light.

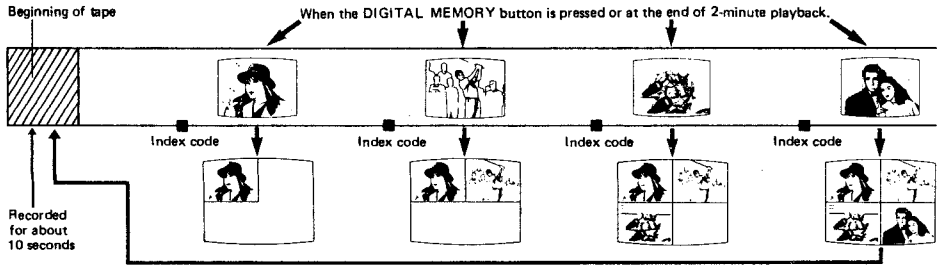
3 Press the FF button
- When an index code is detected, playback starts automatically and continues for about 2 minutes.
- Intro Search in the reverse direction is not possible.

4 Press the DIGITAL MEMORY button while playback continues.
- The picture coinciding with the pressing of the button is displayed on the upper left-hand corner sub-screen.
- If the DIGITAL MEMORY button is not pressed, the last picture of the 2-minute playback remains displayed on the sub-screen as a still picture.
- Then the Fast-Forward mode is automatically engaged to detect the next index code.

5 When all sub-screens have been filled with still pictures or the end of the tape is reached, the Rewind mode is engaged (Auto Rewind).
6 When the tape is rewound to the beginning, the multi-screen picture is automatically recorded at the beginning of the tape for about 10 seconds.
- If the safety tab of the cassette has been removed, this recording will not take place.

7 The VCR enters the Stop mode automatically and the Digital function is also cancelled.

Notes:
- To cancel the Intro Search mode midway, press the OFF button or STOP button.
- The recorded program at the beginning of the tape will be replaced for about 10 seconds by the multi-screen picture by automatic recording. (This recording will not take place if there are no index codes on the tape.)
- Programs between index codes less than 2 minutes away from each other will not be memorized automatically.


Beginning of tape
When the DIGITAL MEMORY button is pressed or at the end of 2-minute playback.
Index code
Index code
Index code
Index code
Recorded for about 10 seconds

DIGITAL FUNCTIONS

TIMER RECORDING

AUTOMATIC TIMER RECORDING

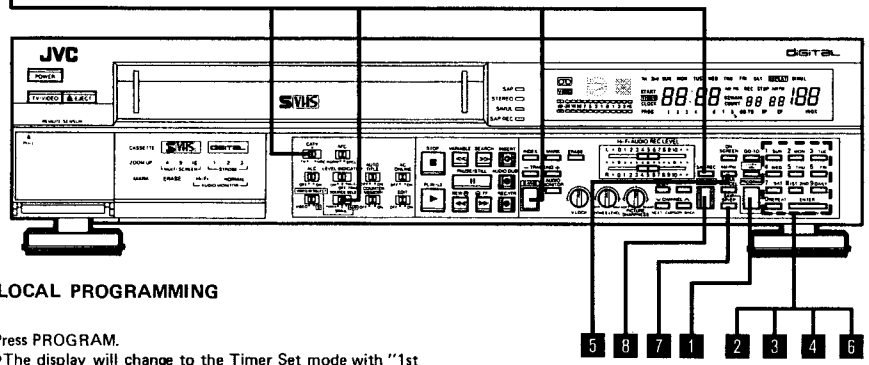
The built-in 14-day/8-event programmable timer permits recording of preset channels on preset days at preset times for preset lengths while you are away.

Three ways to perform timer programming
- **A. Local programming:** Program the timer using the recorder's controls while referring to the recorder's FDP.
- **B. Direct remote programming:** Program the timer using the remote control's keys while referring to the on-screen display.
- **C. Independent remote programming:** Program the remote control's memory using the remote control's keys while referring to its own LCD and then transfer the data to the recorder.

First of all, load a cassette (with safety tab in place); power will be switched on automatically.

Make sure of the settings of these switches:
SOURCE SELECT: TUNER (or SIMUL)
SAP REC: As required.
TV/CATV/HRC: As required.
S-VHS: As required.

Basic steps in programming
- Data input is possible where the cursor (blinking position) is located.
- Set the data and press the ENTER button; the data will be stored in memory.



A. LOCAL PROGRAMMING

1 Press PROGRAM.
- The display will change to the Timer Set mode with "1st SUN" ② ③ blinking and program number "1" ① displayed. You are ready to enter the data into No. 1 program memory. To change the program number, press the PROGRAM button the required number of times.

2 Key in the day ③ ; and press ENTER.
- To set for the 2nd week, press [8] either before or after setting the day.
- To set for weekly serial recording ④, press [0].
- To set for daily serial recording, press [9].

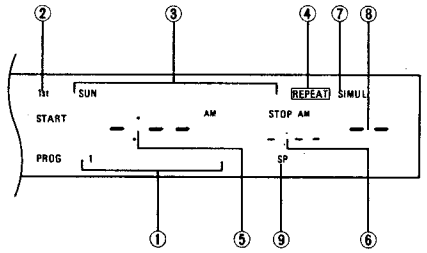
3 Key in the start time ⑤ and press ENTER.
- To specify AM or PM, press AM/PM/SIMUL either before or after setting the time.
- Invalid time numbers will be rejected (see page 39).

4 Key in the stop time ⑥ and press ENTER.
- Specify AM or PM in the same way for the start time.

5 To program FM simulcast recording, press AM/PM/SIMUL to call up "SIMUL" ⑦ .
6 Key in the channel number ⑧ and press ENTER.
- Invalid channel numbers will be rejected.

7 Specify the recording speed ⑨ by pressing SP/EP and press ENTER.
- Now you can advance to the next program, if necessary, by pressing the PROGRAM button.
- After all necessary programs have been preset, proceed to the next step.

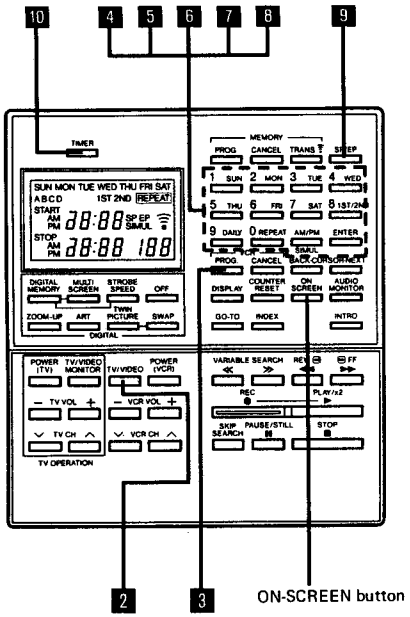
FDP



8 Press TIMER.
- The TIMER indicator will light. (For error indications, see page 39.)
- The display will return to the Clock mode, also showing the program numbers for which recording data has been programmed.

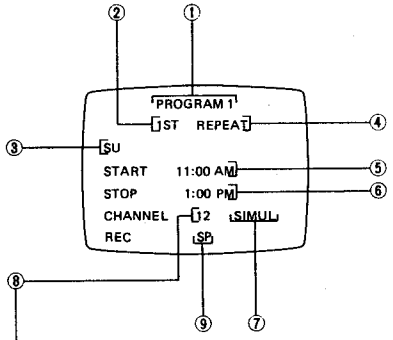
TIMER RECORDING

B. DIRECT ON-SCREEN REMOTE PROGRAMMING



ON-SCREEN display

ON-SCREEN



●"TU OFF" appears when the SOURCE SELECT switch is set to AUX; channel setting is not possible.

TIMER RECORDING

1 Turn on the TV receiver and set to your video channel (3 or 4).
2 Press the TV/VIDEO button to engage the VIDEO mode.
3 Press VCR PROG.
- ●The picture on the TV screen will change to the On-Screen Timer Set mode with "1ST SU" ② ③ blinking and "PROGRAM 1" ① displayed. You are ready to enter the data into No. 1 program memory. To change the program number, press the VCR PROG. button the required number of times.
- ●To cancel the On-Screen Timer Set mode in the middle of timer programming, press the ON SCREEN button.
- ●Pressing the ON SCREEN button again, calls up the on-screen display.

4 Key in the day ③ ; and press ENTER.
- ●To set for the 2nd week, press [8] either before or after setting the day.
- ●To set for weekly serial recording ④, press [0].
- ●To set for daily serial recording, press [9].

5 Key in the start time ⑤ and press ENTER.
- ●To specify AM or PM, press AM/PM/SIMUL either before or after setting the time.
- ●Invalid time numbers will be rejected (see page 39).

6 Key in the stop time ⑥ and press ENTER.
- ●Specify AM or PM in the same way for the start time.

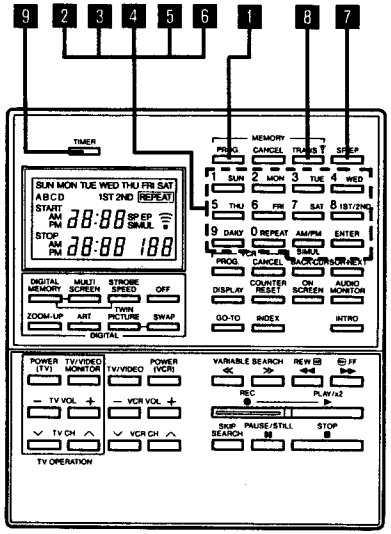
7 To program FM simulcast recording, press AM/PM/SIMUL to call up "SIMUL" ⑦ .
8 Key in the channel number ⑧ and press ENTER.
- ●Invalid channel numbers will be rejected.

9 Specify the recording speed ⑨ by pressing SP/EP and press ENTER.
- ●Now you can advance to the next program, if necessary, by pressing the VCR PROG. button.
- ●After all necessary programs have been preset, proceed to the next step.

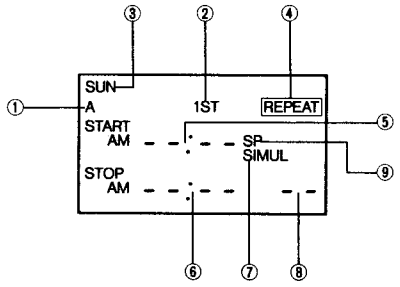
10 Press TIMER.
- ●The TIMER indicator will light. (For error indications, see page 39.)
- ●The display will return to the TV picture.

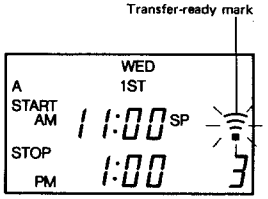
C. INDEPENDENT LCD REMOTE PROGRAMMING

- The remote control incorporates 4 program memories: A, B, C and D. These are independent of the VCR's timer memories 1 to 8.



- These 4 programs can be pre-programmed and held in memory. When transferred to the VCR memories, they are effective in controlling the VCR's starting and stopping.





TIMER RECORDING

1 Press MEMORY PROG.
- ●The LCD will be activated for program "A" ①, with "1ST SUN" ② ③ blinking.
- ●To advance to programs B, C or D, press again.

2 Key in the day ③ ; and press ENTER.
- ●To set for the 2nd week, press [8] either before or after setting the day.
- ●To set for weekly serial recording ④, press [0].
- ●To set for daily serial recording, press [9].

3 Key in the start time ⑤ and press ENTER.
- ●To specify AM or PM, press AM/PM/SIMUL either before or after setting the time.
- ●Invalid time numbers will be rejected (see next page).

4 Key in the stop time ⑥ and press ENTER.
- ●Specify AM or PM in the same way for the start time.

5 To program FM simulcast recording, press AM/PM/SIMUL to call up "SIMUL" ⑦ .
6 Key in the channel number ⑧ and press ENTER.
- ●Invalid channel numbers will be rejected.

7 Specify the recording speed ⑨ by pressing SP/EP, and press ENTER.
- ●After all program items have been set, the "transfer-ready" mark will appear and blink.

8 Direct the remote control to the recorder's REMOTE SENSOR window and press MEMORY TRANS.
- ●The programmed data will be loaded in one of the VCR's memories (1 – 8), the vacant one of the smallest number.
- ●If all program memories are full, the VCR's clock display will blink and transmission will not take place.
- ●When this happens, check the VCR's memories on-screen and cancel unnecessary programs. For this purpose, press the VCR PROG. button to call up the on-screen display and check programs one after another. When a program that you do not wish to keep is reached, cancel it by pressing the VCR CANCEL button.
- ●After having cleared the VCR's program memory, transfer the data once again. If the LCD goes out, press the MEMORY PROG. button to call up the desired program and, after making sure that the transfer-ready mark is blinking, press the MEMORY TRANS button.

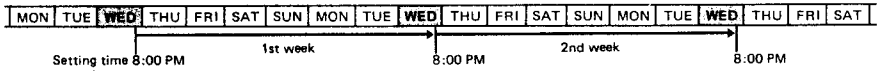
9 Press TIMER.
- ●The TIMER indicator on the FDP will light. (For error indications, see next page)

IMPORTANT INFORMATION ON TIMER RECORDING

Concept of "week"

- The 1st week or 2nd week do not refer to weeks on the calendar; the 1st week refers to the seven-day period from the present day and the 2nd week, to the following seven-day period. These two weeks are counted from the time of setting.

If the current day and time of setting are Wednesday, 8:00 PM:


MON TUE WED THU FRI SAT SUN MON TUE WED THU FRI SAT SUN MON TUE WED THU FRI SAT
Setting time 8:00 PM
1st week
8:00 PM
2nd week
8:00 PM

Variety of day setting possibilities

Setting	Procedure
One day of the 1st or 2nd week.	Numeric keys "1" – "7" (and "8" for 2nd).
Weekly serial from the 1st week.	Numeric keys "1" – "7" and "0" for REPEAT.
Weekly serial from the 2nd week.	Numeric keys "1" – "7", "8" for 2nd, and "0" for REPEAT.
Daily serial (SUN through SAT) for one week or every week.	Numeric key "9" for all days. • Press once to obtain SUN through SAT. • Press again for MON through SAT. • Press again for MON through FRI. • "REPEAT" appears automatically with these indications. • For daily serial recording only for one week, cancel "REPEAT" with numeric key "0".
Daily serial (MON through SAT) for one week or every week.	
Daily serial (MON through FRI) for one week or every week.	

Setting the timer

- Enter the data while the corresponding indication is flashing (about 60 seconds). If no command is entered within one minute, the display will return to the Clock mode.
- It is not possible to set the start and stop times unless the clock time has previously been set.
- The stop time can be set within 24 hours from the start time. The day indication will not change even if the stop time runs into the following day.
- The BACK/NEXT CURSOR buttons can be used to move the cursor. Use this function to reach positions which require correction. Press NEXT to move the cursor forward; press BACK to move the cursor back.
- If an invalid number is entered in time setting, the entered data is cleared and the display returns to a blinking "-:--" when the ENTER button is pressed. In case of correct entry, the blinking position advances to the next.

Last-channel memory

- The currectly tuned channel locks in the Timer Set mode and, when the display returns to the Clock mode, the locked channel is displayed.

Cancelling the preset data

- The preset programs can be cancelled by pressing the CANCEL button. For this purpose, first engage the Timer Set mode for the number you wish to cancel and then press the CANCEL button. With the remote control, to cancel the LCD memory, press the MEMORY CANCEL button; to cancel the VCR's memory, press the VCR CANCEL button.

Checking the programmed data

- Checking and re-programming can be performed anytime, even when the TIMER button has already been engaged in the ON position.
- To check the programmed data, press the PROGRAM button. To return to the Clock mode, press the DISPLAY button. The Clock mode will also be restored by pressing the PROGRAM button once after program number 8 is displayed.
- While recording is actually taking place, the stop time can be changed. Engage the Timer Set mode; only the stop time will flash. Re-program it.
- While recording is actually taking place according to one preset program, all other preset programs can be checked or re-programmed.

TIMER indicator (Error indication)

- When the TIMER button is pressed to ON with a cassette loaded and the timer correctly programmed, the TIMER indicator on the display will light with the corresponding preset program number(s) also lighting and the power is turned off.
- If two or more programs have overlapping times, the numbers of those programs will blink rapidly for 10 seconds after the TIMER button has been pressed. If no change is made in the programming, later programs will begin only after earlier programs are completed.
- When you have preset several programs at a time, confirm that all the preset program numbers light together with the TIMER indicator when the TIMER button is pressed. The program whose number does not light has not been correctly preset (for instance, the preset switch-on and switch-off times are the same). Recheck the programmed data.
- If all programs have been wrongly preset, the TIMER indicator will blink for about 10 seconds when the TIMER button is pressed, and then remains lit with no program number lighting.
- If the TIMER button is pressed when a cassette is not loaded, the TIMER indicator will continue blinking.
- If a cassette with its safety tab removed has been loaded, it will be ejected automatically when the TIMER button is pressed. The TIMER indicator will continue blinking.

Timer operation

- Tape loading starts 20 seconds before the preset switch-on time and the recording start signal is triggered 2 seconds before the preset time so that recording starts exactly at the preset time.
- During timer recording, the number of the program that is presently operating will be flashing.
- After timer recording, the power is switched off and the auto-rewind mechanism does not function. If the end of the tape is reached during timer recording, the cassette is automatically ejected and then the power is switched off with the TIMER indicator blinking.
- If a power failure should occur (and last longer than about 60 minutes), not only time-keeping stops (see page 21), but also all the preset data will be cancelled. A flashing SUN AM 12:00 indicates this after power has been reapplied. In such cases, first correct the time indication and then re-enter the programming data.

RECORDING FM SIMULCAST TV PROGRAMS

FM simulcast TV programs can be recorded using an FM stereo tuner. Connect necessary components. (Connect the FM tuner to the AUDIO IN connectors.) Select the TV channel broadcasting the simulcast program with the recorder's channel select buttons and tune the FM stereo tuner to the station broadcasting the soundtrack for this TV program.
The only difference from the basic recording procedure (described on page 25) is the setting of the SOURCE SELECT switch.

- Set the SOURCE SELECT switch to SIMUL.
  Then the SIMUL indicator will light. With this setting, the audio signals from the built-in tuner will be recorded on the normal audio track and the audio signal from the FM stereo tuner will be recorded on the hi-fi audio track.

Notes:

- After finishing recording, be sure to set the SOURCE SELECT switch to TUNER.
- While recording simulcast programs, the hi-fi sound might be distorted momentarily at switching points between different programs (at the insertion of commercials, for example). This is not due to any defect of the unit.

RECORDING A TV PROGRAM WHILE RECORDING AN INDEPENDENT AUDIO SOURCE

Using the "simulcast" recording function, you can record independent audio and video programs, because the TV soundtrack is not lost, but recorded on the normal audio track. While recording a TV program, record any audio source independently.

- Connect an audio component (such as an FM tuner) to the AUDIO IN connectors.
- Set the SOURCE SELECT switch to SIMUL.

Notes:

- If you stop recording to avoid unwanted material of the TV program using the PAUSE/STILL button, the audio program from the external source is also cut.
- If television broadcasting comes to an end during recording, the hi-fi sound being recorded from the external source may be distorted. It is recommended that you check the timetable of TV broadcasts in advance.
- After finishing recording, be sure to set the SOURCE SELECT switch to TUNER; otherwise recording on the hi-fi audio track from the built-in tuner will not be possible.

USING THE HR-S8000U AS AN AUDIO DECK

Audio-only recording

You can record audio only (without recording any video signal) on the normal and hi-fi audio tracks. This means you can record a continuous 8-hour FM program onto a single cassette (T-160).

- Connect an audio source (such as an FM tuner) to the AUDIO IN connectors.
- DO NOT connect any equipment to the VIDEO IN connector.
- Set the SOURCE SELECT switch to AUX.

AUDIO DUBBING

Audio dubbing means recording a new soundtrack on a pre-recorded tape. In other words, the previously recorded sound is erased and replaced with a new soundtrack. **Audio dubbing is applicable only to the longitudinal audio track (normal audio).** Therefore, a dubbed narration can be heard together with the original hi-fi sound.

Procedure

1. Switch on the TV receiver.
   - Adjust the TV receiver's channel to your video channel (3 or 4).
2. Load a pre-recorded cassette. Power will be switched on automatically.
3. Connect a microphone or an audio source to the MIC jack or the AUDIO IN connectors respectively.
   - With both microphone and audio source connected, mixed sound is recorded.
4. Set the SOURCE SELECT switch to AUX.
   - If you record sound only from the microphone, the source equipment connected to the AUDIO IN connectors should be off.
5. Press the PLAY/X2 button to start playback and then press the REW or FF button to search for the point from which you wish to start audio dubbing.
6. Press the PAUSE/STILL button at the start point of audio dubbing.
7. Press the AUDIO DUB button.
8. Press the PLAY/X2 button.
   - Audio dubbing will start.

Notes:

- It is recommended that you use a lower-impedance microphone.
- If a stereo source is connected to the AUDIO IN connectors, the mixed L and R sound is recorded.
- If whistling or howling is heard during audio dubbing, reduce the TV volume or move the microphone farther away from the TV. Recording is being performed even if sound is not heard from the TV receiver. If you want to monitor the sound being recorded, connect headphones to the PHONES jack.

INSERT EDITING

Insert editing means recording a new scene into a section of pre-recorded tape so that a part of the original recording can be replaced with a new sequence without excessive picture distortion at edit-in and edit-out points. Thanks to the flying erase head, clean edits can be obtained. New video and audio signals to be inserted can come either from another video cassette recorder or the built-in tuner.

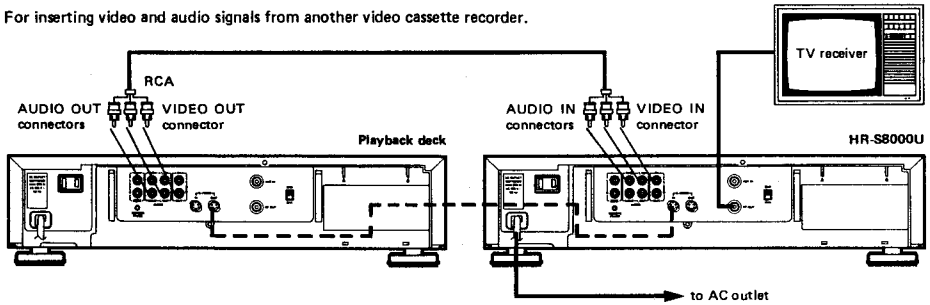
CAUTION
Since video and audio signals are recorded simultaneously, both are replaced with new recordings simultaneously. However, the normal audio soundtrack remains unchanged.

Setting options of the relevant switches

Switch / Source	SOURCE SELECT switch
To insert programs from a different tape	AUX (with VIDEO IN SELECT set as required — see page 9)
To insert TV programs from the built-in tuner	TUNER
To insert FM simulcast programs	SIMUL

Connection

For inserting video and audio signals from another video cassette recorder.



Procedure

1. Switch on the TV receiver.
   - Adjust the TV receiver's channel to your video channel (3 or 4).
2. Load a pre-recorded cassette.
3. Press TV/VIDEO to engage the VIDEO mode (the indicator lights).
4. Set the SOURCE SELECT and VIDEO IN SELECT switches as required. (See chart above.)
5. Set the Hi-Fi audio recording level. (See page 19.)
6. Play back the tape to determine the edit-out point (the end of the tape section to be replaced).
7. Press the PAUSE/STILL button at the edit-out point.
8. Press the COUNTER RESET button.
   - The tape counter will be reset to "0000".
9. Press the REW button to determine the edit-in point (the beginning of the tape section to be replaced).
10. Press the PAUSE/STILL button at the edit-in point.
11. Press the INSERT button.
    - This engages the Insert Standby mode in which the input signal can be monitored on the TV screen; the still picture changes into the input signal that you are going to record.
    - The input sound signal can also be monitored.
12. Operate the source equipment properly.
    - Play back on another recorder the tape program to be inserted.
    - Select the channel to be recorded.
    - *Select the channel and set the FM tuner.*
13. Press the PLAY/X2 button to start insert editing.
    - Now video and audio signals will be recorded simultaneously.
    - At the counter reading of "0000", recording will stop automatically.
    - The tape will continue running in the Play mode.

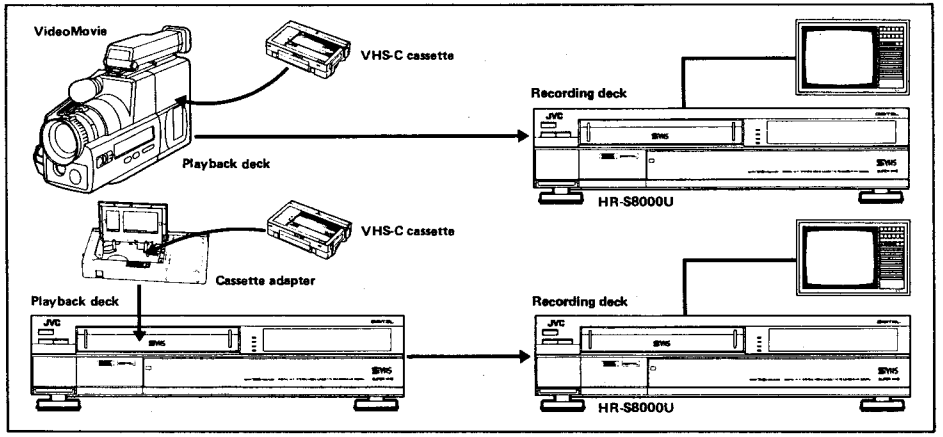
Notes:

- Do not use the STOP button to stop insert editing. If you press the STOP button, the tape stops and the Insert Edit mode is cancelled.
- If you wish to stop insert editing before the specified edit-out point is reached, press the COUNTER RESET button. Then the Play mode will be entered.
- The recording mode (SP or EP) is automatically determined by the previous recording on which the new segment is inserted regardless of the setting of the SP/EP switch.
- If the edit start point of the new scene lies in the SP mode and the edit end point of the same scene lies in the EP mode or vice versa, the inserted picture will distort at the switching point in the recording mode.
- If there is a non-recorded section on the tape, the Insert Edit mode will be cancelled automatically and the Play mode will be engaged.
- Insert editing is not possible with non-recorded cassettes or cassettes whose safety tab has been removed.

TAPE-TO-TAPE EDITING

VideoMovie recordings can be edited by using a VideoMovie camcorder (with playback facility) or a 2nd video deck.

Through use of a cassette adapter, VideoMovie recordings can be treated just like regular VHS cassettes.



- Connect the playback deck's VIDEO OUT and AUDIO OUT connectors (or the VideoMovie's AV OUT) to the recording deck's VIDEO IN and AUDIO IN connectors.
- Set the recording deck's SOURCE SELECT switch to AUX.
- Set the recording deck's S-VHS button as required.
- Put the playback deck in the Play mode.
- Put the recording deck in the Record mode.

Notes:

- For S-VHS editing, also refer to page 12.
- For monaural audio connection, use the AUDIO IN L connector.

Tips for obtaining better results

The quality of the edited tape may vary depending on the position of the EDIT switch. It is recommended that you first make some trial recordings.

- With the EDIT switch of the playback deck set to ON and recording deck to OFF,
- With the EDIT switch of both playback and recording decks set to ON, and
- With the EDIT switch of both decks set to OFF.

Choose the setting combination that best suits your preference.

Note: Also refer to the instruction manual of the 2nd video recorder you are using.

RECORDING WITH A VIDEO CAMERA

Connection

To connect a video camera, an appropriate camera adapter is necessary.

- Connect the video camera to the camera adapter.
- Connect the camera adapter to the HR-S8000U: adapter's VIDEO OUT to recorder's VIDEO IN, adapter's AUDIO OUT to recorder's AUDIO IN, and adapter's PAUSE to recorder's REMOTE PAUSE.

For proper connection of a camera to the HR-S8000U, consult a JVC dealer.

Operation

1. Turn the power on for all connected equipment.
2. Adjust the TV receiver to your video channel.
3. Load a cassette.
4. Set the SOURCE SELECT switch to AUX and the S-VHS button as required.
5. Press the TV/VIDEO button to obtain the VIDEO indication on the FDP.
6. Set the SP/EP button as required.
7. Press the REC/ITR and then the PAUSE/STILL button.
   - The recorder enters the Recording Standby mode.
8. Operate the camera's start/stop switch.
   - Recording starts and stops with this switch.
9. To end the recording, press the STOP button.

Notes:

- If feedback noise (whistling or howling) is heard from the TV receiver, reduce the volume or move the camera's microphone farther away from the TV receiver.
- For camera operation refer to the instruction manual for the relevant camera.

IN CASE OF DIFFICULTY

What may initially appear to be trouble is not always a real problem. Make sure first . . .

POWER AND TAPE TRANSPORT PROBLEMS

Symptoms	Check points
No power is applied to the recorder.	• Is the power cord disconnected? – Connect it.
Clock is functioning properly, but the recorder cannot be powered.	• Is the TIMER indicator lit on the FDP? – Press the TIMER button to turn off the indicator.
Tape does not run during recording.	• Is the PAUSE/STILL button pressed to ON? – Press the PLAY/X2 button.
Tape stops in the Rewind of Fast Forward mode.	• Is the COUNTER MEMORY function engaged? – Set it to OFF.
Tape will not rewind or fast forward.	• Is the tape already fully rewound or fast forwarded? – Check the cassette.

RECORDING PROBLEMS

Symptoms	Check points
Recording cannot be started.	• Is a cassette loaded? • Is the safety tab on the cassette removed? – Reseal the slot with cellophane tape.
TV broadcasts cannot be recorded.	• Is the SOURCE SELECT switch set to AUX or SIMUL? – Set it to TUNER.
Camera recording is not possible.	• Are the camera and the camera adapter correctly connected? • Is the power switch of the camera adapter set to ON? • Is the SOURCE SELECT switch set to a position other than AUX? – Set it to AUX.
Simulcast recording is not possible.	• Is the SOURCE SELECT switch set to a position other than SIMUL? – Set it to SIMUL. • Is an audio source correctly connected to the AUDIO IN connectors? – Check connections.
Timer recording is not possible.	• Have you set the clock correctly and programmed the timer correctly? – Check once again. • Is the TIMER indicator lit on the FDP? – If not, press the TIMER button to light the indicator.

HI-FI AUDIO PROBLEMS

Symptoms	Check points
TV sound cannot be recorded on hi-fi audio tracks.	• Is the SOURCE SELECT switch set to SIMUL? – Set it to TUNER.
Breaks are noticeable in hi-fi audio reproduction.	• Adjust with the TRACKING control buttons. (See page 20.)
Soundtrack on the hi-fi audio track cannot be reproduced.	• Is the AUDIO MONITOR select button set to NORMAL? – Set it to Hi-Fi.
Audio level indicators do not function.	• Is the LEVEL INDICATOR switch set to OFF? – Set it to ON.

PLAYBACK PROBLEMS

Symptoms	Check points
Playback picture does not appear while the tape is running.	• Is the TV receiver's channel selector set to the correct video channel? – Set it to the RF converter channel (3 or 4). (See page 14.)
Noise appears on the search and still pictures.	• This is normal.
Noise appears during normal playback.	• Adjust the TRACKING control buttons.
Playback picture is blurred or interrupted while TV broadcasts are clear.	• Video heads may be dirty. – Head cleaning is necessary. Consult your nearest JVC dealer.

OTHERS

Symptoms	Check points
Whistling or howling is heard from TV during camera recording.	• Move camera's microphone away from TV or reduce TV sound volume.
Clock setting is not possible.	• Is the TIMER indicator lit on the FDP? – Press the TIMER button to turn off the indicator.
Some channels are skipped over when scanning channels.	• Those channels are preset to be skipped over. If you need them, restore them. (See page 16.)
Channel cannot be switched.	• Is recording in progress? – Press the PAUSE/STILL button, select a desired channel and press the PLAY/X2 button.
Snowy picture on screen when viewing TV programs while recording another program.	• Is the VIDEO indicator lit? – Press the TV/VIDEO button so that the indicator extinguishes.

This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the power off and unplug the power cord. After a few minutes, plug it in again and switch on. Take out the cassette. After checking the cassette, operate the unit as usual.

HEAD CLEANING

- Picture playback may become blurred or interrupted while the TV program received is clear. This does not mean that the recorded program has been erased.
- Dirt accumulated on the video heads after long periods of use causes such troubles. In this case, head cleaning requiring highly technical care is necessary.

* For head cleaning, consult the nearest JVC dealer.

SPECIFICATIONS

Format	: S-VHS/VHS NTSC standard with Hi-Fi audio
Video recording system	: Rotary, two-head helical scan system with slant double-azimuth combination video heads
Hi-Fi audio recording system	: Deep-layer recording system conforming to stereo Hi-Fi VHS standard
No. of audio channels	: 2 Hi-Fi audio channels 1 normal audio channel
Video signal system	: NTSC-type color signal and separated Y/C signals conforming to NTSC.
Tape width	: 12.65 mm (1/2 inch)
Tape speed	
(SP)	: 33.35 mm/s (1-5/16 ips)
(EP)	: 11.12 mm/s (7/16 ips)
Maximum recording time	
(SP)	: 160 min. with T-160 video cassette
(EP)	: 480 min. with T-160 video cassette
Temperature	
Operating	: 5°C to 40°C (41°F to 104°F)
Storage	: -20°C to 60°C (-4°F to 140°F)
Antenna	: 75 ohms, unbalanced
Channel coverage	
(VHF)	: Channels 2 – 13
(UHF)	: Channels 14 – 69
(CATV)	: 113 channels
RF output signal	: Channel 3 or 4 (switchable; preset to channel 3 when shipped) 75 ohms, unbalanced
Power requirement	: AC 120 V~, 60 Hz
Power consumption	: 48 W
Video	
Input	: 0.5 to 2.0 Vp-p, 75 ohms, unbalanced
Output	: 1.0 Vp-p, 75 ohms, unbalanced
Signal-to-noise ratio	: 45 dB (Rohde & Schwarz noise meter) with PICTURE SHARPNESS control at center position
Horizontal resolution	: More than 400 lines (S-VHS)/ 240 lines (VHS) with PICTURE SHARPNESS control at center position
Audio	
Input	: -8 dBs, more than 50 k-ohms, unbalanced
Output level	: -6 dBs, high impedance load
Output impedance	: Less than 1 k-ohm, unbalanced
Signal-to-noise ratio	: More than 40 dB (Normal audio)
Frequency range	: 70 Hz to 10,000 Hz (Normal audio)
Hi-Fi audio	
Frequency response	: 20 Hz to 20,000 Hz
Dynamic range	: More than 90 dB
Wow and flutter	: Less than 0.005 % WRMS
Timer	: 14-day programmable timer 8 programs with repeat function
Dimensions	: 467 mm(W) x 107 mm(H) x 373 mm(D) (18-7/16" x 4-1/4" x 14-11/16")
Weight	: 8.4 kg (18.6 lbs)
Provided accessories	: Infrared remote control unit "AA"-size battery x 2 S-VIDEO cable (4-pin) Matching transformer Antenna extension cable Antenna splitter Antenna cable (F-type) Audio cable Video cable S-VHS cassette tape

Specifications shown are for SP mode unless otherwise specified.
Design and specifications subject to change without notice.